DOCUMENT RESUME

ED 340 858 CE 059 942

TITLE Analysis of Linkages in Selected School-to-Work and Career Advancement Transition Programs.
INSTITUTION CSR, Inc., Washington, D.C.; International Training Inst., Kathmandu (Nepal).
SPONS AGENCY Employment and Training Administration (DOL), Washington, DC. Bureau of Apprenticeship and Training.
PUB DATE Mar 91
CONTRACT 99-9-2224-98-065-01
NOTE 222p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC09 Plus Postage.
DESCRIPTORS Adult Education; Career Change; Corporate Support; *Demonstration Programs; Disadvantaged; Dislocated Workers; *Education Work Relationship; Experiential Learning; *Incentives; Job Skills; Job Training; Postsecondary Education; *Promotion (Occupational); Publicity; Recruitment; Retraining; Rewards; *School Business Relationship; Secondary Education

ABSTRACT

A study focused on formal and informal linkages between industry and education that were supportive of structured work-based learning at three transition points: entry, dislocation, and upgrade. During 1990, site visits were made to 10 school-to-work, 1 dislocated worker, and 4 career advancement programs. Study methodology included informal discussions with representatives of the key partners and trainees and/or graduates at each program, observations of actual classroom instruction and workplace training, and examination of relevant program materials. A qualitative data analysis within and across program models identified similarities and differences in three major areas: linkages within the programs; program operations; and factors affecting successful program operations. Four categories of partners were involved: (1) program; (2) employers; (3) educational institutions; and (4) trade, governmental, and community organizations. Partnerships were supported by formal devices. Outreach and recruitment activities were closely related to public promotion. Although programs offered various types of training, all stressed experiential, hands-on techniques. Factors identified as incentives or rewards were consistent within each category of participant and within program type but not across program type. Six categories of barriers were consistent across programs: size inefficiencies; cult of personality; lack of information; demographic/economic changes; turf conflicts; and resources. (YLB)

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Analysis of Linkages in Selected School-to-Work and Career Advancement Transition Programs

Prepared for:

Bureau of Apprenticeship and Training
Office of Work-Based Learning
Employment and Training Administration
U.S. Department of Labor

Prepared by:

CSR, Incorporated
and
Meridian Corporation

March 1991

U.S. DEPARTMENT OF EDUCATION
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ANALYSIS OF LINKAGES IN SELECTED SCHOOL-TO-WORK AND CAREER ADVANCEMENT TRANSITION PROGRAMS

Prepared for: Bureau of Apprenticeship and Training
Office of Work-Based Learning
Employment and Training Administration
U.S. Department of Labor

Prepared by: CSR, Incorporated
Suite 600
1400 Eye Street, N.W.
Washington, D.C. 20005

Barbara Barrett, Project Manager
Eric Rice, Principal Investigator
Eileen Keefe, Senior Analyst

and

Meridian Corporation
Suite 400
4300 King Street
Alexandria, VA 23202

Edward Davin, Subcontract Manager
Joseph Cavallaro, Senior Analyst
Brenda Lester, Senior Analyst
Janet Reingold, Senior Analyst

DOL Contract No. 99-9-2224-98-065-01

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

AFL-CIO	American Federation of Labor—Congress of Industrial Organizations
AFDC	Aid to Families with Dependent Children
AL	Alabama
ANEW	Apprenticeship and Nontraditional Employment for Women
AVTC	Area Vocational-Technical Center
BAT	Bureau of Apprenticeship and Training
CA	California
CCC	California Computer Curriculum
CEO	Chief Executive Officer
CH	Crouse-Hinds
CNC	Computerized numerical control
COFFEE	Cooperative Federation of Educational Experiences
DOT	Dictionary of Occupational Titles
DVTE	Department of Vocational-Technical Education
Ed	Education
EDWAA	Economic Dislocation and Worker Adjustment Assistance
ERIC	Educational Resources Information Center
ESL	English-as-a-Second Language
ETA	Employment and Training Administration
FL	Florida
FY	Fiscal Year
GED	Graduate Equivalency Diploma
GPA	Grade point average
GT	Geometric tolerance
H.I.R.E.	Help in Re-Employment
H.S.	High school
IEP	Individual Education Plan
ITP	Individual Training Plan

JOBS	Job Opportunities and Basic Skills
JTPA	Job Training Partnership Act
JUMP	Joint Urban Manpower Program
KY	Kentucky
LA	Los Angeles
MAI	Management Association of Illinois
MATC	Milwaukee Area Technical College
MO	Missouri
N.A.	Not applicable
NAB	National Alliance of Business
NCA	National Culinary Association
NICET	National Institute for Certification in Engineering Technology
NTIS	National Technical Information Service
NY	New York
NYSDOT	New York State Department of Transportation
OCC	Onondaga Community College
OJT	On-the-job training
OK	Oklahoma
OR	Oregon
OWBL	Office of Work-Based Learning
PA	Pennsylvania
PHSA	Philadelphia High School Academies
PI	Portland Investment
PIC	Private Industry Council
PSA	Public Service Announcement
RVTI	Renton Vocational Technical Institute
SATC	St. Augustine Technical Center
SICA	Southeast Institute of Culinary Arts
SLPS	St. Louis Public Schools
SPC	Statistical process control
TA	Technical assistance
U.S.	United States

VFI	Vocational Foundation, Inc.
WA	Washington
WI	Wisconsin

ACKNOWLEDGMENTS

This project would not have been possible without the cooperation of the major partners at each of the 15 programs selected for participation in the study. Their willingness to contribute to our research efforts reflects the same spirit of cooperation and commitment that sustains their program partnerships. To the program administrators, board and committee members, employers, governmental and community group representatives, instructors, and trainees who provided both their time and insights, we extend our thanks.

James Van Erden, Director of the Office of Work-Based Learning, and Nicholas Kolb, the Federal Project Officer from the Bureau of Apprenticeship and Training, guided the design and execution of the study. It has been a pleasure to work with them over the course of the project. We appreciate their efforts, as well as those of Dr. Robert Glover, CSR's consultant.

A special thanks must be given to CSR's publications staff for their skills and patience in preparing various materials for the project, especially this analytic report. The report was edited by Marissa Bernstein and Monica Sorensen; Pamela Anderson, Donald Hall, and Ruth Steenburg performed the design and layout. To these staff, thank you.

EXECUTIVE SUMMARY

INTRODUCTION

In the past decade, major economic and demographic changes have occurred that present serious challenges to U.S. productivity. These changes have prompted an examination of how to raise the skill levels of entry-level workers as well as middle-aged workers whose continued employment or advancement demands upgraded skills. The Employment and Training Administration (ETA), U.S. Department of Labor, launched the Apprenticeship 2000 initiative in December 1987 to determine the role of the *apprenticeship concept* in raising skill levels of American workers. Initial findings from the initiative indicate that there is a role for structured work-based training incorporating some features of the apprenticeship concept; a need exists for public-private partnerships to expand such training; and work-based learning alternatives for noncollege-bound youth are essential.

The growing interest in workplace training and renewed emphasis on vocational education and school-to-work transitions prompted the award of a contract to CSR, Incorporated, in June 1989 by ETA's Bureau of Apprenticeship and Training (BAT), which is now located within the Office of Work-Based Learning (OWBL). The purpose of this contract was to focus on issues related to transitions at the following three points and the linkages that facilitate such transitions:

- Entry-level employment at the beginning of work life;
- A new job after having been displaced from a previous job; and
- An advanced job or a job upgrade in one's career path.

METHODOLOGY

The study design focused on formal and informal linkages between industry and education that are supportive of structured work-based learning at the three identified transition points: entry, dislocation, and upgrade. The analytic framework called for an examination of structural linkages, functional linkages, and the mechanisms/ strategies (e.g., competency-based curricula) to operationalize and make these linkages possible. The examination was conducted in 15 model programs.

In collaboration with BAT/OWBL staff, the following criteria for selecting programs were identified: program model (school-to-work, dislocated worker, or career advancement); educational level within the school-to-work model (secondary or postsecondary); population served (at-risk groups, all students, special populations, existing labor force); geographic distribution; data showing successful outcomes on certain dimensions (e.g., job placement, graduation, attendance rates); program

maturity (at least 2 years old); involvement in other studies that would conflict with participation in this study; recent staff or programmatic changes that would affect the nature of the information collected; and urban/rural service area.

From more than 100 programs identified as potential candidates, ten school-to-work, one dislocated worker, and four career advancement programs were selected for and participated in the study. These programs are briefly described on the following pages. CSR found that the dislocated worker program is designed to upgrade or adapt existing skills to meet labor demand and therefore functions like a career advancement program, so it has been included it in this broad program category.

A 3-day site visit was made by one senior researcher to each of the 15 programs between March and August 1990. Based on informal discussions with representatives of the key partners and a few trainees and/or graduates at each program, observations of actual classroom instruction and workplace training, and examination of relevant program materials, staff first integrated program-specific data. Then the researchers performed a qualitative data analysis within and across program models (as well as by educational level for school-to-work programs) to identify similarities and differences in three major areas: linkages within the programs, program operations, and factors affecting successful program operations. The results and implications or lessons learned from the analyses are summarized for each area.

Using these findings, CSR and its subcontractor, Meridian Corporation, have developed a separate document that discusses the lessons learned and effective strategies for linking work and learning. Directed toward employers, educators, and policymakers, this document includes specific examples and activities that can be adapted to the development or strengthening of local partnerships.

CHARACTERISTICS OF MODEL PROGRAMS

Target Group. Six of the 10 school-to-work programs target at-risk populations (4 of the 7 secondary programs and 2 of the 3 postsecondary programs); the other 4 programs serve disadvantaged students in their broader target population. Among the career advancement programs, some target all employees within the company, while others focus on specific occupations (e.g., nursing assistants) or levels (e.g., managers and supervisors) within the company.

Population Served. The school-to-work programs serve from 6 to 400,000+ trainees. Size is related primarily to the population density of the geographic area served and the extent to which the program is a broad, community-based program that reflects local labor needs. The career advancement programs train from 400 to 3,900 individuals. Size is determined more by the number of employees, the needs of the participating companies, and the capacity of the service providers than by program

School-to-Work Model (Secondary Level)

Student Apprenticeship Linkage Program in Vocational Education, Huntsville, Alabama

This program is a joint effort of the Huntsville Center for Technology, Alabama Department of Education, and local employers to link vocational education programs and industry apprenticeship and training programs. Open to 6 to 12 high school seniors with at least 1 year of vocational training in an apprenticeable trade, this program offers the opportunity to begin preapprenticeship training as a machinist, electrician, electronics technician, carpenter, drafter, or plumber while earning wages and gaining job experience. Graduates register as apprentices in full-time permanent jobs that have been guaranteed by the employers who offer the preapprenticeship training.

Los Angeles Adult Regional Occupational and Skills Center Program, Los Angeles, California

Operated by the Los Angeles Unified School District, Division of Adult and Occupational Education, in partnership with several thousand employers and local/State government, this program serves more than 400,000 secondary, postsecondary and adult trainees per year. Competency-based training is provided in the following areas: agricultural and environmental studies, business, electronics and computer science, health occupations, home economics, and industrial technology.

Louisville Education and Employment Partnership, Louisville, Kentucky

The Partnership, established in 1988, is a joint effort of the City of Louisville, the Jefferson County Government, the Jefferson County Public Schools, the Private Industry Council, the Chamber of Commerce, and the Metro United Way. Program goals for the 1,800 to 2,000 annual participants include improving student achievement and attendance, reducing the dropout rate, and increasing the number of students attending postsecondary education. Local employers provide summer, part-time, and full-time jobs to participating students.

Philadelphia High School Academies (PHSA), Philadelphia, Pennsylvania

PHSA, Incorporated, a nonprofit organization, operates this program in partnership with the Philadelphia School District, the local business community, the unions (particularly the American Federation of Teachers), and the Philadelphia Committee to Support the Public Schools. There are 6 academies (automotive, business, electrical, environmental technology, health, and horticultural), each operating as a school within a school at 13 comprehensive high schools that serve more than 1,700 students, grades 9 through 12, annually.

The Portland Investment (PI), Portland, Oregon

This partnership, formed to combat student dropout and unemployment problems, is directed by the Leaders Roundtable, an ad hoc committee of policymakers from city and county government, business and industry, public schools, and community organizations. The PI has comprehensive goals and envisions a continuum of education, employment training, and personal support services for individuals from prenatal to age 21. There now are 16 programs under the PI "umbrella" that annually serve more than 2,300 youth enrolled in middle schools, high schools and alternative schools. Occupational skill training focuses on financial services and health care.

Cooperative Federation for Educational Experiences (Project COFFEE), Oxford, Massachusetts

This project involves the Oxford City Schools, Digital Equipment Corporation, government agencies, local organizations, a number of employers, and about 15 other school systems in Western Massachusetts. Project COFFEE is an integrated alternative training program that specializes in dropout prevention and reconnecting alienated students with education. Approximately 100 students from 18 regional high schools participate each year and receive vocational training in computer maintenance, word processing, horticulture/agriculture, or building/grounds maintenance.

St. Louis Off-Campus Work/Study Program, St. Louis, Missouri

Initially a partnership between the Ralston Purina Company and the vocational education division of the St. Louis Public Schools, this program now has additional members including four other private businesses, the American Institute of Banking, and the city of St. Louis. With the goal to increase the employability of students by providing supervised work experience, the program offers approximately 100 high school seniors annually both academic and on-the-job training (OJT) at the actual place of business. OJT is given in banking, business, city government, financial services, and customer service.

School-to-Work Model (Postsecondary Level)

Apprenticeship and Nontraditional Employment for Women (ANEW), Renton, Washington

ANEW is a nonprofit organization linked with industry, labor, and government to train women for nontraditional jobs, especially in apprenticeable construction and electrical/mechanical trades. Presently funded by Job Training Partnership Act (JTPA) monies, the program serves approximately 50 economically disadvantaged women in each 5-month course offered twice a year at the Renton Vocational Technical Institute. ANEW provides comprehensive training services to address the multiple skill deficits of participants and uses a holistic approach to improve their employability and coping skills.

Joint Urban Manpower Program (JUMP), Inc., New York City, New York

Sponsored by private industry and several engineering societies, JUMP's existence is tied to Federal and State requirements for equal employment opportunities in publicly funded contracts for engineering services awarded to private firms by the New York State Department of Transportation. The Vocational Foundation, Inc. (VFI), a nonprofit agency, operates JUMP, which provides 400 hours each of classroom instruction and OJT in construction inspection or drafting. The 15 to 25 youth and adults in each training cycle are employees of their respective companies, which reimburse VFI for expenses from their contract funds.

Southeast Institute of Culinary Arts (SICA), St. Augustine, Florida

SICA is 1 of 25 technical-vocational programs offered by the St. Augustine Technical Center, which is part of the Florida public postsecondary school system. SICA serves approximately 90 students each year. The 2-year, competency-based training includes the daily operations of the Center's faculty dining room and student cafeteria. The course design is guided by advisory boards composed of local industry representatives and tradespeople who are knowledgeable about competencies demanded in the labor market. These boards also provide linkages with employers for student placement both during training and after graduation.

Career Advancement Model

Crouse-Hinds, Syracuse, New York

In collaboration with Onondaga Community College, the Crouse-Hinds Division of Cooper Industries has designed training programs open to all employees that address three areas: job-specific, skills-specific, and general training needs. The training is seen as a means of preventing worker dislocation for some employees and providing career advancement for others. Between 1986 and 1990, approximately 1,400 employees have participated in the more than 240 training programs and 3 Associate Degree programs.

Genesis Health Ventures, Kennett Square, Pennsylvania

Genesis Health Ventures is a medical services company specializing in geriatric care. Corporate operations are located in nine States along the Eastern seaboard of the United States. In partnership with Holyoke Community College (in Massachusetts) and 11 other community colleges located close to facility operations, Genesis provides a career advancement program for nursing assistants through a series of four graduated, career ladder steps that culminate in an Associate Degree in Nursing. Over 400 employees have completed training since the program's inception in 1985.

Prairie State 2000 Authority, Chicago, Illinois

This program funds career advancement training, primarily in new technologies or productivity/quality improvement systems, that is customized to the needs of both employees and employers. The training is provided to about 3,900 employees each year through a partnership with Prairie State (a State-funded agency that provides loans and grants to companies and training vouchers to individuals); business/trade associations, community colleges, community-based economic development organizations and unions; and small to medium-sized "primary" manufacturing companies in Illinois that receive funding from Prairie State. Two participating business groups reviewed in this study were the Management Association of Illinois (which acts as a training broker and provider, in addition to providing other business support services) and the Economic Development Council for the Peoria Area (which acts as a broker between Prairie State and prospective participating employers in their service area).

Indian-Meridian Area Vocational-Technical Center (AVTC), Stillwater, Oklahoma

The Indian-Meridian AVTC and Oklahoma State Department of Vocational-Technical Education have collaborated with seven local employers to provide management and supervisory training on an as-needed basis. In addition, the program employs a chief executive officer network of local plant managers, arranges special cross-company training sessions, and presents nationally known guest lecturers. Employer partners pay an annual retainer fee for services. In operation since 1985, this career advancement program trains several hundred employees each year.

Help in Re-Employment (H.I.R.E.), Milwaukee, Wisconsin

This program provides dislocated workers with skills assessment, upgrade training or retraining when necessary, and placement services to reenter the workforce. H.I.R.E. also provides various support services to dislocated workers and their families. In operation for 6 years, the program serves approximately 2,200 workers annually. Staff are provided by the four major partners: the Milwaukee Area Technical College, the Wisconsin State Job Service, the Wisconsin State AFL-CIO, and the United Way of Greater Milwaukee.

design. The type of population served has a major effect on program design and implementation in both program models.

Years of Operation. The school-to-work programs have been in operation much longer than the career advancement programs (average of 14 years vs. 5 years at the time of the site visits).

Number of Staff. The number of staff involved in each program varies as a function of the number of trainees served, the number of facilities used for program operation, the types of training offered, and funding levels. A clear pattern in the school-to-work programs is the designation of one individual to direct and coordinate activities overall, with site-specific "managers" in the form of lead teachers, career planners, or instructors when multiple locations are involved. Community figures often are used to make presentations on special topics. The career advancement programs typically have a program coordinator or training manager, a designated number of trainers, and some administrative or secretarial support.

LINKAGES WITHIN PROGRAMS

The Partners. Four categories of partners are involved in the programs studied: the program itself (which operates as a separate entity); employers; educational institutions; and trade, governmental and community organizations. In every instance, the program is market driven, i.e., the employment needs and projections in the area served by the program play a major role in program planning and implementation.

The size of the partnerships varies from approximately 12 to more than 1,000 members. The contribution of each member organization is dependent on available resources; however, all partners make valuable contributions of time, energy, expertise, and prestige as well as monetary resources. The large numbers and high visibility of the partner organizations seem to result in increasing the attention and priority given to the program by the general community.

Mechanisms to Maintain Linkages. The partnerships are supported by formal devices such as advisory groups and memos of understanding. However, more informal mechanisms such as maintaining personal contact, distributing newsletters, and ensuring the quality of program staff add to the strength of the partnerships.

Life Cycle of Partnerships. There appear to be three phases in the development of the partnerships, each marked by characteristic activities and time periods. In Phase I, generally a 2- to 3-year period, the terms of the partnership are set and the group achieves consensus on the partnership's mission and activities. In Phase II, also a 2- to 3-year period, the partnership implements the program and promotes the goals

of the effort. In the multiple-year Phase III, the programs reach maturity and, often, the partnerships seek new challenges. There seems to be limited flexibility in the length of each of the development phases.

Lessons Learned

All partners must share a clear vision of program outcomes and work to achieve mutual goals. There must be a common understanding among partners about the nature of the target population and the expected outcomes of program activity. Based on this understanding, the expectations must become the written goals of the partnership and be vigorously pursued by the program. The development of written goals and commonly held expectations is particularly important for the diverse partners typically found in the school-to-work program model.

There must be a recognition of the time requirements necessary to create and institutionalize an effective partnership and program. Creating linkages is a very time-consuming and costly activity because the process requires significant involvement of upper-level management, especially in the planning and initial implementation phases; it appears to take a school-to-work program about 3 years to reach operational maturity. This may be difficult for policymakers and program planners who need results on a quick-turnaround basis.

Educational service providers must have a private-sector perspective. The data clearly indicate that educational partners define their role as a service organization and view their mission as carrying out the training mandates established by the partnership. The educational partners recognize the need to be accountable, to negotiate, and to be timely and responsive in designing appropriate training/education.

The partnership must foster a climate of negotiation and allow some organizations to play multiple roles. The school-to-work partnerships frequently establish a program as an independent entity that then functions as a third-party broker to help reduce turf battles and focus the partners' attention on client needs and expected outcomes. The model programs often adopt rules for dealing with conflict (e.g., problems are not discussed outside the meeting room). The career advancement programs sometimes use the same organization to serve as a broker, funding scout, and training provider. This permits that organization to function in a manner similar to an outside organizational development consultant.

Partners must exhibit a top-down commitment that grows both vertically and horizontally within their organizations. This may be the most important lesson learned from both program models. There are four issues related to this lesson:

- There must be top-level commitment from all key partners, who must also provide direction and authority for moving forward with the program.

- The authority and responsibility becomes decentralized throughout the participating organizations as the program moves toward implementation. This decentralization results in a broadly based ownership of and commitment to the outcomes and process of the program. It also ensures continuity if some of the linkage points are displaced.

- This commitment is expressed in the personal investment of time (not just facilities, equipment, or other resources) at all levels.

- The partners develop and use chief executive officer (CEO) networks to secure needed resources, maintain a camaraderie among the leaders, ease the transition of new leadership, transfer knowledge and information, and provide an institutional framework for participation and interaction.

The partnership must foster open, honest, and frequent communication. Model programs are characterized by frequent communication at all levels of activity within the partnership. New ideas are encouraged; credit for success is shared. While partners may argue their own points of view in joint meetings, public discussion of the program is positive.

All employers, regardless of size or sector, should be included in the program. Larger employers have more on-the-job training (OJT) placements available to students and, with a larger staff, can more readily assume the costs and responsibilities associated with supervising trainees. On the other hand, smaller businesses often depend on the program for part-time workers and can provide work experience as well as paychecks for students. Further, small employers can increase their scope, stability, and visibility through the networking that occurs within the partnership.

Involving a single school system in the partnership eases administration and facilitates communication. Most of the model programs involve a single school partner, which means that one educational entity serves as the fiscal manager and point of contact among the partners, and different administrative procedures found in multiple school districts do not arise to complicate matters.

PROGRAM OPERATIONS

Promotion. Outreach and recruitment activities go hand-in-hand with public promotion efforts because publicity generates support for and participation in the program. In school-to-work programs, key recruitment strategies for employers include having respected private industry leaders on the program's advisory group or

board of directors and involving employers in curriculum development and review. With all participant groups (trainees, employers, and the community), being able to present outcome data to demonstrate that program objectives are being met is crucial.

Among the career advancement programs, the training programs are seen as valuable promotional vehicles. Employers enhance their reputation for quality, which can generate more customers, and for caring about employees, which enhances recruitment and retention of workers.

Types of Training. The 10 school-to-work programs offer these 8 types of training in various combinations: academic; basic skills; GED preparation; occupational skills; physical conditioning; preemployment skills; job seeking skills; and employability/life coping skills. Employers, program administrators, and trainees regard the last three types of training as critical to developing a positive self-concept, to finding a job, and to succeeding in an adult work environment.

The training in career advancement programs concentrates much more on specific vocational skills development. Across these programs, it was apparent that the training is designed to (1) meet the particular needs of the employer and (2) offer career development opportunities to the employees.

Training Methods. All programs stress the need for using experiential, hands-on, task/job-related techniques in dealing with trainees. All programs include classroom training to some degree, although the instructors use less lecture and considerably more small group work, individual activities, interaction, modeling, and practice of specific tasks than is typically observed in classroom teaching.

Assessment of Trainees' Performance. Criteria to assess trainees' performance in the 10 school-to-work programs typically include grades, attendance, and skill/knowledge testing. Competency-based curricula in use in every program provide very specific performance criteria against which progress is measured. Trainees in secondary programs may receive a high school diploma (assuming successful completion of the requirements). Skill certification is provided in at least 6 programs.

The career advancement programs typically, but not universally, rely less on grades, attendance, and formal examinations, and more on employers' assessments and on documentation of formal attainment of degrees. All of the programs offer trainees certification upon successful completion of the training.

Assessment of Service Providers' Performance. Secondary school programs generally measure their performance by improved student attendance, improved basic skills proficiency, decreased number of dropouts, and increased numbers of graduates,

of postsecondary enrollees and of those entering the workforce. Postsecondary programs emphasize skills training and improved career opportunities. Programs that are funded partly or wholly by Job Training Partnership Act (JTPA) monies have performance-based contracts with the local Private Industry Councils (PICs) and are required to maintain careful records about completion rates, placement rates, average wage at placement, and retention rates at specified periods following placement.

Most of the career advancement programs use some method for evaluating service providers' performance, such as an annual assessment by the employers, evaluation forms completed by trainees, and/or sometimes, employee retention rates.

Program Funding. The total annual budget in 6 of the 10 school-to-work programs for which data are available ranged from a low of $378,695 (ANEW with 92 students) to a high of $123 million (Los Angeles with a 408,624 cumulative yearly enrollment), excluding in-kind contributions. The two major categories of public funding are education monies (from local, State and, to a lesser extent, Federal sources) and employment and training funds from the JTPA. In-kind contributions are found in every program and range from rather modest to highly significant dollar amounts, without which the programs would not exist. Funding for career advancement programs may be almost entirely private, or public, or a mix of the two.

Lessons Learned

Varied and ongoing promotional activities that are professional and carefully targeted are necessary to maintain support for, and involvement in, the program. Promotional activities serve as both recruitment and retention mechanisms among program partners and participants. Publicity chosen to promote the program must address the needs of the specific group targeted, whether it be employers, trainees, or the community.

Regardless of skill area, training must be work focused and organized in modules that are designed to meet the needs of trainees, whether they are at-risk youth or adult learners. In both program models, success seems to be linked to training that includes large segments of learning-by-doing and by hands-on, task-based, work-based assignments and materials. Working on assignments that are largely self-paced gives trainees the opportunity to become proficient in each task or skill. In school-to-work programs, effective training links basic skills, work procedures, and employability skills for continuing success in real jobs.

School-to-Work Programs

Establishment of clear expectations and delineation of roles and responsibilities early on facilitate trainee success. In "contracting" with the student, by developing a training plan or agreement, the educational institution delineates specific, concrete objectives and outcomes, as well as expectations regarding student performance and behavior. The institution also agrees to provide an environment in which students can achieve success in exchange for fulfilling their responsibilities. This puts the relationship on a business-like footing that helps to orient the student to the adult world of work and enhances self-esteem and confidence as the trainee experiences success.

Trainees must be viewed holistically, so that all their needs, strengths and weaknesses are taken into account. Successful programs seem to link not only school and work but also social and support services into a continuum of opportunities for trainees. Services are often provided on a referral basis and on a personal basis by program staff.

Competency-based assessment builds the trainee's sense of accomplishment and assures the employer of the caliber of the prospective employee (and therefore of the program). Assessment of trainees' performance, in meaningful terms, is a critical function in ensuring continued program operations and linkages among the partners. Competency-based testing is the common denominator in the model programs studied. Assessment of service providers' performance is vital to program operations. Measurable outcome data (e.g., attendance, graduation/skill certification, job placement, job retention, wage rates) are used not only to justify continuation of the program, but also to identify improvements that are needed in program content or structure.

Financial and in-kind contributions from the private sector are essential for ensuring a smooth startup and continued support for the program. Program funding relies primarily on tax dollars that are redistributed through Federal, State, and local education and employment and training funds. However, substantial levels of private funding and in-kind contributions also are required to initiate and sustain the program, to maintain balance in the partnership, and to ensure the credibility of private-sector participation.

Career Advancement Programs

Training programs for career advancement must be designed and delivered with sensitivity to the learning needs of the adult learner. Ideally, programs are developed with input both from the employer, who recognizes the necessity of accommodating the employee participants' need for flexible scheduling and pace, and

from a community college or other institution with considerable expertise in providing adult education services. Since many adults are uncomfortable returning to the classroom, instructors must develop a nonthreatening atmosphere.

The use of a formal career ladder mechanism may help legitimize the program within the company and offer an attractive incentive to participating employees. A recognized career progression gives employees the opportunity to plan their professional growth within a company and therefore has the "side effect" of developing employee loyalty to and pride in the organization. Other side effects are the development of a working team approach and the fostering of the perception, in the broader community, that the company has—and values—a quality workforce.

FACTORS AFFECTING SUCCESSFUL PROGRAM OPERATIONS

Incentives and Rewards in School-to-Work Programs

Trainees

Incentives: Participation provides opportunities for a change, for earning money while learning, and for entry into the labor market.

Rewards: Jobs and job opportunities, respectable and/or higher-than-average starting wage ($7.50-$10/hour in postsecondary programs), and higher self-esteem and self-confidence.

Educational Institutions

Incentives: Participation increases enrollment, helps students succeed, and provides a service to the community and to employers.

Rewards: Improved attendance, resulting in decreased dropout rates, higher graduation rates, and high placement rates as evidenced by the number of students who become gainfully employed as a result of the training.

Industry

Incentives: Participation contributes to a pool of well-trained workers for entry-level positions, either for the employers themselves or the community at large. Some employers are involved because they can meet contractual or legal obligations regarding affirmative action and equal employment opportunities.

Rewards: Increase in skill levels of entry-level personnel and retention of graduates hired.

Trade, Governmental, and Community Groups

Incentives: Participation seems motivated by a sincere desire to increase the employability of neglected, disadvantaged, or underserved populations within the community as well as to encourage the growth of area business.

Rewards: A perceived or actual increase in the tax base (as a result of trainees going to work) and the potential for fewer at-risk students to become public welfare recipients.

Incentives and Rewards in Career Advancement Programs

Trainees

Incentives: Participants are attracted by the opportunity to learn new skills and enhance their employability, especially when the training is scheduled at a convenient time and in a convenient location.

Rewards: Improved job skills, performance, teamwork, morale, corporate spirit, and marketability.

Educational Institutions

Incentives: Participants expand their base of operations, enhance their staff and program capabilities, keep current with industry practices and technology, enhance their prestige in the community, and enjoy a greater level of support from the private sector.

Rewards: Greater recognition; increased opportunities to provide training; greater capacity to fulfill the community economic development mission; greater staff and institutional capacity to provide a range of services; endowed chairs; and donations of equipment, materials, tools, and money.

Industry

Incentives: Participants expect a skilled labor pool that can adapt to changes in the workplace (e.g., new technology, new procedures); they also expect productivity, products and service to their customers, and competitiveness. In addition, they welcome the opportunity to tailor the training to their specific needs and to receive assistance with the cost of training.

Rewards: A high return on investment, as evidenced by a reduction in employee turnover, increased productivity (because of improvements in employees' communica-

tion patterns, problem-solving capabilities, and sense of involvement), an ability to attract high-quality employees, an enhanced awareness of current management and organizational theory, and outside assistance with training costs.

Trade, Governmental, and Community Groups

Incentives: Participants note that private funds, not just tax dollars, are used for the training. They expect lower unemployment rates, a reduced reliance on social and welfare services, and the fostering of a healthier business climate.

Rewards: An improved business climate, enhanced prestige of the community, and an ability to attract more businesses to the area.

Lessons Learned

The link between school and work must be very clearly perceived by the trainees and the partners. For school-to-work programs to succeed, the training experience must be directly related to the job, and trainees must attend school to get and keep the job.

The partners all need to know and understand the bottom line results that they can expect from participating in the partnership, and how those results relate to their own organizational goals. Employers need to know how the program affects people, productivity, and profitability. In school-to-work programs it means a shortened learning curve and appropriate work attitudes for trainees. In career advancement programs, it means cost savings when existing workers are redeployed rather than replaced. Educational institutions need to know how the program affects attendance, performance, completion/graduation, and the image of the institution. Community organizations need to know how the program affects the tax base, the economic environment, and the image of the region.

Partnerships are facilitated when they focus on service goals that crystalize the program mission as well as support the mission of each partner organization. The data suggest that a close relationship between expectations and outcomes facilitates partnerships. When that relationship exists, organizations seem willing to continue within the partnership in order to meet their own needs and the needs of others.

Barriers to Successful Operation and Strategies for Resolution

Size Inefficiencies. Several programs reported that the small size of their school or company posed a problem for starting or continuing their partnership. The strategy of forming regional associations of potential partners has been used effectively to

overcome the size issue in several of the programs studied. To ease difficulties associated with incorporating large numbers of organizations into the working partnership, key leaders recommend developing memos of understanding to publicly state the expected outcomes of the program and the division of responsibilities among partners and then establishing clear points of contact within each partner organization.

Cult of Personality. Sometimes programs suffer from the "cult of personality" or a situation in which the leaders of partner organizations establish close personal relationships and operate the program based only on those relationships. If one of the personalities is removed, then the partnership suffers and may have difficulty surviving. Strategies that have proved effective in maintaining continuity of and priority for the program include use of signed memos of understanding among the partners, public exposure and media attention focused on the program, and decentralized decisionmaking and broad-based responsibilities for maintaining contacts among partner organizations.

Lack of Information. An initial barrier faced by several partnerships was the lack of data about successful models, experience about how to form a partnership, and information about how other organizations in the partnership conducted business. Strategies used to overcome this problem generally begin with a careful analysis of the strategic economic needs of the geographic area and of each potential partner. Those findings and ideas are then built into the program and the marketing design that will require frequent and honest communication to implement and maintain.

Demographic/Economic Changes. Problems in program development and/or operations may arise because of economic or demographic changes in the region. Frequently, these changes include the diminishing size of the age cohort of secondary-level students, the growth of non-English speaking immigrant populations, and/or a shift in the local economy from manufacturing to service-based industries. A strategy for dealing with the problem is to view the economic and demographic changes as an opportunity for revitalization of the partnership. These challenges stimulate new ideas and offer an opportunity to rekindle the efforts of the partnership. In partnerships that have forged relationships with new partners when confronted with economic/demographic changes, the result has been the expansion of the program to serve more students than had previously been the case.

Turf Conflicts. "Turf battles" occur at three levels: among partner organizations, within individual organizations in the partnership, and within the larger community. Difficulties among partner organizations seem to arise in marketing the program to new organizations and in working through day-to-day operations. A successful approach to dealing with the marketing issue is to learn enough about the potential partner to determine how program services fit the organization's mission and then to present the proposal as a win-win service opportunity.

The strategies that have been used to deal with day-to-day operational conflicts among existing partners center around focusing on a singular mission for the program, and subjugating all other objectives or needs to that mission. Further, the partnership must establish and maintain internal rules about how each partner will discuss the program and its problems in public.

Turf battles that occur within individual partner organizations often can be dealt with by laying groundwork, in advance of program startup, regarding how the program will fit into the ongoing operation of the organization. Establishing the program as a separate entity also works to reduce internal conflict.

The third area of turf battles, conflict between the program and organizations outside the partnership, has been effectively dealt with by involving representatives from the outside organizations on planning task forces and/or curriculum review committees. Publicly emphasizing the success of the program helps to improve the program image and reduce conflict.

Resources. Barriers related to resources generally take forms other than simply "lack of money." For example, business and industry partners seem especially sensitive to the "red tape" involved in public funding sources and have sometimes counseled other partners to refuse public money. An alternate strategy for dealing with the issue is to designate a specific partner, usually an educational institution, as responsible for handling the paperwork associated with securing and using public funding sources. Seed money is very important to the success of developing a program. However, funding ongoing operations was not often identified as a major or ongoing problem because the prevailing orientation within the model programs is that creative solutions to the issue of resource needs can, and will, be identified and implemented.

1. INTRODUCTION

BACKGROUND OF THE STUDY

Major economic and demographic changes have occurred in the past decade that present serious challenges to U.S. productivity. Of key concern to the Employment and Training Administration (ETA) have been changes in the job market and the labor force and the implications those changes have for ETA's role in enhancing the skills of the American worker. Among the more significant changes in the job market are the following:

- The continuing growth in service industries (rather than manufacturing) that creates jobs with small employers;
- The growing need for workers in many job classifications to have inclusive and sophisticated educational, occupational, and job-specific skill levels;
- The increasing availability of new jobs in smaller metropolitan areas, especially in the sunbelt States; and
- The retrenchment of manufacturing in light of international competition and new technology.

Technological innovation in the workplace demands workers with good basic skills and the ability to adapt to new and increasingly complex work situations. Some studies estimate that one-half of workers' skills become obsolete in 3 to 5 years, rather than 7 to 14 years as was previously estimated. This has major implications for training and retraining U.S. workers.

International competition from both developed and developing countries is affecting the U.S. share of world markets. In order to remain competitive, U.S. firms need to improve their productivity and performance. Achieving these goals will require developing the skills of all segments of our workforce.

At the same time, changes in the labor force indicate a need for more creative and customized education and training models. These changes in workforce demographics include the following:

- An increase in females, minorities, and immigrants, some of whom have specialized needs regarding employment and training; and

- The projected decline in the growth of the labor force over the next decade, with lower proportions of both younger and older workers—only the middle-aged group (25 to 54) is expected to increase during the next decade.

The combination of economic and demographic changes, coupled with new technologies and increased international competition, has prompted a reexamination of how to raise the skill levels of entry-level workers as well as middle-aged workers whose continued employment or advancement demand upgraded skills. ETA has engaged in several major efforts to address this issue. Of key relevance to the present study is the Apprenticeship 2000 initiative.

The Apprenticeship 2000 initiative was launched in December 1987 to determine the role of the *apprenticeship concept* in raising skill levels of American workers. The first stage of this initiative involved public dialogue, short-term research projects, and exploratory focus papers. This review showed that:

- Structured work-based training that incorporates some of the more pertinent features of the apprenticeship concept should be encouraged.

- There is a need for public-private partnerships to expand structured work-based training.

- The development of work-based learning alternatives for noncollege-bound youth is essential to help them make the transition from school to a meaningful career path.

The growing interest in workplace training and renewed emphasis on vocational education and school-to-work transitions prompted award of a contract to CSR, Incorporated, in June 1989 by ETA's Bureau of Apprenticeship and Training (BAT), which is now located within the Office of Work-Based Learning (OWBL). The purpose of this contract was to focus on issues related to transitions and the linkages that facilitate such transitions. Transitions at the following three levels were of particular interest:

- Entry-level employment at the beginning of one's work life;

- A new job after having been displaced from a previous job; and

- An advanced job or a job upgrade in one's career path.

The overall objective of the study was to contribute to the development of improved linkages between structured workplace training and other human resource develop-

ment programs in order to enhance the overall effectiveness and efficiency of the Nation's human resource development system. The results of the study are intended not as a "how-to" manual but rather as more generalized findings for use by decisionmakers and practitioners involved in developing and/or strengthening work and learning linkage models.

METHODOLOGY

The study design focused on formal and informal linkages between industry and education that are supportive of structured work-based learning at the three identified transition points: entry, dislocation, and upgrade. The analytic framework called for an examination of structural linkages, functional linkages, and the mechanisms/ strategies (e.g., competency-based curricula) to operationalize and make possible these linkages.

One of the first study tasks involved a review of programs to be selected for examination. In collaboration with BAT/OWBL staff, the following criteria for selecting programs were identified:

- Program model (school-to-work, dislocated worker, or career advancement);
- Educational level within the school-to-work model (secondary or postsecondary);
- Population served (at risk, all students, special populations, existing labor force);
- Geographic distribution;
- Data showing successful outcomes on certain dimensions (e.g., job placement, job retention, graduation/skill certification, attendance rates);
- Program maturity (at least 2 years old to have had time to demonstrate the efficacy of the linkages);
- Program involvement in other studies (to avoid conflicts with participation in this study);
- Recent staff or programmatic changes that would affect the nature of the information collected; and
- Urban/rural service area.

A pool of more than 100 programs was identified as potential study sites through a combination of information sources including, but not limited to, the following:

- Available print sources and electronic bibliographic data bases including National Technical Information Service (NTIS), Educational Resources Information Center (ERIC), and ABI/Inform;
- State and Federal Department of Labor officials;
- State and local educational representatives; and
- Government-sponsored research reports.

Information was gathered on each potential program's services, strategies, and availability of data associated with the selection criteria.

Outcome data were judged as especially important because the research study was designed to learn how and why successful programs operate. Therefore, programs without data on successful outcomes were eliminated from further consideration. Further, only those programs that reported very successful outcomes on factors such as high placement/hiring rates or high retention/attendance rates were considered seriously as study sites.

The study design specified that 15 sites would be visited and that the primary emphasis would be on school-to-work programs. Several discussions were held with BAT/OWBL staff to narrow the field of candidates, based on the selection criteria.

Ten school-to-work, one dislocated worker, and four career advancement programs were selected for and participated in the study. These programs were selected for maximum diversity to determine if generalized findings emerged from that diversity.

Site visits were conducted between March and August 1990. Except for the pilot test site (Project COFFEE) visited by two staff members, one senior researcher made the 3-day visit to each of his or her assigned programs. Using various topic guides designed for the study, project staff had informal discussions with representatives of the key partners and a few trainees and/or graduates at each program. In addition, actual classroom instruction and workplace training were observed. Project staff also collected relevant program materials (e.g., curricula, training synopses, descriptions of program development/operations, and outcome data) prior to, during, and following the site visits.

Data from these various sources were integrated by the senior researchers into a profile of each program visited. This profile, prepared for analytic use only by

project staff, addressed the 26 major questions to be answered by the study. (See Appendix A for study questions.) Then staff performed a qualitative analysis of the data within and across program models (as well as by educational level for school-to-work programs) to identify similarities and differences in program linkages, operations, and incentives.

The findings from the study are presented in subsequent chapters of this report. One early finding was that the dislocated worker program in the study is designed to upgrade or adapt existing skills to meet labor demand. In preventing worker dislocation, this program effectively functions as a career advancement program. As a consequence, the programs have been collapsed into two broad categories—school-to-work and career advancement transition programs. The analysis does not ignore differences that exist between career advancement and dislocated worker transition programs on some dimensions, but it recognizes that, with respect to linkages, there are greater similarities than differences.

The remainder of Chapter 1 is organized into two sections, beginning with a brief description of each program, organized by program model. That section is followed by characteristics of the programs studied, such as program duration, target group, and size. Chapter 2 describes the linkages within the programs. The specific organizations involved in each program, their roles, and the mechanisms for maintaining linkages among the partners are discussed. Chapter 3 focuses on program operations—promotional strategies, types of training and support services offered, assessment of trainees' and service providers' performance, program funding, and technical assistance needs. Finally, Chapter 4 examines the factors affecting successful program operations, including incentives for participation and factors that act as barriers or facilitators in linkage development and continued operation of the program. Each chapter concludes with "lessons learned" or implications of the analysis.

The results of these analyses have been used to develop the other major product of this study—a document that discusses the lessons learned and effective strategies for linking work and learning. Directed toward employers, educators, and policymakers, this document includes specific examples and activities that can be adapted to the development or strengthening of local partnerships.

PROGRAM DESCRIPTIONS

Brief descriptions of the programs that participated in the study appear on the following pages.

School-to-Work Model (Secondary Level)

Student Apprenticeship Linkage in Vocational Education, Huntsville, Alabama

The Student Apprenticeship Linkage program is a joint effort of the Huntsville Center for Technology (serving both secondary and postsecondary students), Alabama Department of Education, and local employers to link vocational education programs and industry apprenticeship and training programs. The Huntsville program, begun in 1985, was the first school-to-apprenticeship effort established in the southeast; the BAT State director was involved initially by asking the Center to consider developing a program that would encourage students to go into apprenticeship after graduation from high school. The program was designed to address the shortage of skilled tradespersons in the Huntsville area and the State by enabling regular vocational education students to expand their career options before graduation by beginning to work in an apprenticeable trade, within a company that has a registered apprenticeship program.

The program presently offers a small number (6 to 12) of high school seniors with at least 1 year of vocational training in an apprenticeable trade the opportunity to begin preapprenticeship training while earning wages and gaining job experience. (The number of participants fluctuates with changes in the economy.) Employers involved in the program all have an apprenticeship and training program registered with BAT. They employ the students for 20 hours per week at $4.50 per hour. The employer is reimbursed for 50 percent of the wage cost by the Alabama Department of Education. Students attend regular academic classes in one of five public high schools in the Huntsville area four mornings per week and report to their worksites each afternoon. Student training on the job is supervised by journey-level workers. Each student is required to attend 4 hours of related study at the Center for Technology on Friday mornings. Apprenticeship time and credit toward graduation are earned through successful participation in the program. Graduates register as apprentices in full-time, permanent jobs that have been guaranteed by the employers who offer the preapprenticeship training.

Approximately 50 percent of the graduates enter apprenticeship at an average starting wage of $5.00 per hour; others go on to postsecondary school, the military or other jobs. There have been only two dropouts in the 5 years of operation.

Los Angeles Adult Regional Occupational and Skills Center Program, Los Angeles, California

The training program of the Los Angeles Unified School District, Division of Adult and Occupational Education, represents a unique adaptation of vocational education to meet the needs of employers, employees, and potential employees in the school-to-work situation. The partnership, made up of schools, employers, and local government, involves a number of components and has grown over the past 20 years. Several thousand employers participate by serving on advisory committees; providing industry-based classrooms, some of which are physically located in businesses and others in the vocational centers; sharing such resources as instructors, equipment, and materials; providing jobs; working with schools in comprehensive planning activities; and helping develop curricula.

The program offers employment preparation programs for more than 400,000 trainees per year through four major delivery systems: regional occupational and skills centers, community adult schools, the business/industry schools, and the State-controlled apprenticeship program. The courses provide for the development of knowledge and skills leading to employment and/or further training upon the completion of the program. The courses are competency based and task focused; they are offered in 12 employment preparation centers as well as 26 community adult schools. Courses seem to average several hundred contract hours in length and are offered on flexible schedules that result in the schools functioning 15 hours per day, 6 days per week. The classes are available to all trainees—adults, young adults, and concurrently enrolled students of the regular day program. Curricula for the courses are based on the recommendations of the advisory committees as well as the mandates of licensing agencies. The curricula and recommendations are revised frequently and in conjunction with the appropriate employer and industry association partners.

Among the 20,000 students (many at-risk) served in the business and industry schools, 80 percent are place in the trade for which they were trained, or one related to the training received. The graduation rate of at-risk students in concurrent school is higher than that of at-risk students in day school (62 percent vs. 19 percent).

Louisville Education and Employment Partnership, Louisville, Kentucky

The Louisville Education and Employment Partnership is a program designed to increase educational and employment opportunities for youth by engaging all sectors of the community in improving the quality of the newly emerging workforce from the Jefferson County Public Schools. The Boston Compact, which was established in 1982, served as a model for the Partnership during the initial design and development phase. Established in 1988, the Partnership is a joint project of the City of Louisville, the Jefferson County Government, the Jefferson County Public Schools, the Private Industry Council, the Chamber of Commerce, and Metro United Way. The goals of the Partnership for the 1,800 to 2,000 annual participants include improving student achievement and attendance, reducing the dropout rate, and increasing the number of students attending postsecondary education.

The Partnership has a career planner located in each of the 21 Jefferson County public high schools, helping students prepare for the "world of work" and boosting in-school achievement. The career planners also screen and place students and maintain contact with a large network of employers who participate in the program by offering both full- and part-time jobs to students and graduates. Students who participate in the Partnership sign an agreement indicating a willingness to achieve 95 percent attendance in school, improve grades, and meet employer expectations. In turn, the Partnership agrees to help the students find meaningful part-time and full-time jobs. Students who need summer school are assisted with placement only if they agree to attend classes regularly.

The Partnership also operates a Student Career Introduction Program for economically disadvantaged juniors and seniors who are high academic achievers and a mentoring program designed to give students access to business/industry professional people with whom they can discuss their future. The Partnership's newest endeavor is the Cities in Schools project, which is a national model to provide social service case managers within a school setting to assist with integrating services for students and their families involved with community agencies.

In 1989-90, the attendance rate of students in the program exceeded 90 percent; the dropout rate was nearly two-thirds less than the district's overall rate (1.1 percent vs. 2.96 percent); grade point averages in English and math rose; and more students were continuing their education than in the previous year.

Philadelphia High School Academies (PHSA), Philadelphia, Pennsylvania

The PHSA program, now in its third decade of operation, involves three primary groups: PHSA, Incorporated, the nonprofit corporation established to administer and operate the program; the Philadelphia School District, which works closely with PHSA; and the local business community, which provides support in all areas including funding, policy, and management and operations. In addition, there are two other groups that are significantly involved in the program: the unions (particularly the American Federation of Teachers) and the Philadelphia Committee to Support the Public Schools.

PHSA operates as a "school within a school" high school program that encompasses grades 9 through 12 and serves more than 1,700 students per year. Currently the 6 academies in operation at 13 comprehensive high schools are as follows:

- Automotive Academy;
- Business Academy;
- Electrical Academy;
- Environmental Technology Academy;
- Health Academy; and
- Horticultural Academy.

The Health Academy, primarily a program for those who are college bound, offers courses in academic sciences such as biology and chemistry. All of the other academies, although they include some academic coursework in their programs, are designed to help the noncollege-bound student enter the workforce after high school.

Each academy school serves approximately 50 to 200 academy students who participate in the academy program within a regular Philadelphia comprehensive high school. Academy students within each school attend the same classes on the same schedule (block rostering) and are taught by the same group of teachers (team teaching) for the entire 4 years.

Data for the 1988-89 school year show an attendance rate of 88 percent, a dropout rate of less than 10 percent, and a post-graduation employment and postsecondary education rate of 85 percent.

The Portland Investment (PI), Portland, Oregon

The PI began in 1983, not as a program, but as a partnership of all sectors in the community that were interested in, and had a stake in, dropout prevention. Like the Louisville Education and Employment Partnership, the PI was modeled after the Boston Compact of 1982. The PI is under the direction of the Leaders Roundtable, an ad hoc committee of policymakers from city and county government, business and industry, public schools, and community organizations which was established specifically to address the issue of dropout prevention. The PI envisions a continuum of education, employment training, and personal support services for individuals beginning when they are prenatal and continuing until age 21. Its comprehensive goals focus on families, children, and youth. Initially the Roundtable concentrated on the development of a Comprehensive Summer Youth Employment Program. There are now 16 specific programs that serve more than 2,300 individuals per year under the PI "umbrella."

Together, these 16 programs span middle school through high school and also include out-of-school youth. (Future efforts will focus on preschool and elementary grades.) The programs work together on recruitment and referral, so youth can move through the continuum according to their needs. The array of programs includes student service centers at middle schools where children can receive help and/or referrals for themselves and their families to deal with a wide range of school/social/family problems; a self-esteem building program for children of middle school ages; transitions from eighth to ninth grade and from high school to postsecondary education; school-to-work transition; targeted school year and summer training and education to help 14- and 15-year-olds succeed in school; applied basic skills; private sector work experience and vocational skills training for high school students; competency-based preemployment training; a teen parent program; and a preemployment program for homeless youth. An essential ingredient in the plan is the Comprehensive Summer Youth Employment Program which is part of the year-round, multiyear continuum. School programs make use of the Comprehensive Summer Youth Employment Program as an extension of their services, scheduling work assignments in the summer program to coordinate with the school district's summer school classes to accommodate youth who need to improve their basic skills.

In the 16 programs in 1988-89, attendance rates increased and dropout rates decreased. Basis skills scores rose. Graduation rates ranged between 90-100

percent, more students completed their GEDs, and there were higher entered employment and postsecondary education rates.

Cooperative Federation for Educational Experiences (Project COFFEE), Oxford, Massachusetts

Project COFFEE involves vocational education, special education, the Digital Equipment Corporation, the Oxford City Schools, a number of community employers in Western Massachusetts, and about 15 additional school systems. Established in 1979, COFFEE is an integrated alternative training program that specializes in dropout prevention and reconnecting alienated trainees with education. It now serves more than 100 students each year who hail from 18 regional high schools and who have a history of truancy, academic failure, family problems, and social misconduct. In 1980, the project formed a partnership with Digital Equipment Corporation's Educational Services, which provides curriculum materials, staff training, consultation, and job training experiences for students.

The training program at COFFEE involves a number of important skill-building areas, including occupational skills, basic skills, preemployment skills, coping skills, and physical education. COFFEE works with youth who are considered disadvantaged and handicapped. Training is primarily self-paced, hands-on, and task-specific; it involves using the actual equipment and work processes of the businesses for which students are training. The students are especially involved in customer service activities because each of the vocational classes operates like a business which provides services to the school systems that subscribe and send students to COFFEE, to local government, and to local business (for example, in areas such as computer repair and landscaping).

Project data reveal significant gains in reading and math, improved attendance rates, and an 85 percent graduation rate. Of the graduates, 70 percent are employed; 50 percent of the graduates are employed in jobs related to the occupational training.

St. Louis Off-Campus Work/Study Program, St. Louis, Missouri

The St. Louis Work/Study Program began in 1968 with a grant from the Danforth Foundation that led to a partnership between the Ralston Purina Company and the vocational education division of the St. Louis Public Schools.

The partnership's goal is to increase the employability of students by providing supervised work experience and exposure to careers.

The program offers more than 100 high school seniors annually an alternative to the traditional school setting by having both academic and on-the-job training at the actual place of business. Today there are seven work study programs, five with private business, one with the American Institute of Banking, and one with the City of St. Louis. Students divide their day between regular senior courses and on-the-job training and receive credit for both components. Academic subjects are taught by school system teachers, and on-the-job training is supervised by company employees. The teachers generally visit each workstation on a weekly basis, and thus are cognizant of the needs of the students and the employers and can adjust daily lessons accordingly.

Although the employers have no obligation past graduation, many program graduates are hired by the companies they work for or are assisted with further training, education, or employment. Ralston Purina now employs more than 100 former program participants in positions ranging from entry level to mid-management.

Over the life of the program, the dropout rate has been less than 5 percent and attendance has improved. Placement rates range from 75-80 percent, while the continuing education rates are 15-20 percent.

School-to-Work Model (Postsecondary Level)

Apprenticeship and Nontraditional Employment for Women (ANEW), Renton, Washington

ANEW is a nonprofit organization formed in 1980 by representatives from industry, labor, and government to train women for nontraditional jobs, especially in apprenticeable construction and electrical/mechanical trades. Each year the program serves approximately 100 women who are eligible through the Job Training Partnership Act (JTPA). ANEW provides a comprehensive range of training services addressing multiple skill deficits and employs a holistic approach to helping disadvantaged women improve their employability and coping skills. The 5-month training course includes basic skills remediation, competency-based occupational skills, job/life skills, job-seeking and job-retention skills, and physical conditioning. ANEW has created a supportive learning environment for women emphasizing their strengths and ability to learn

and using creative instructional techniques to promote learning. Since many participants are welfare recipients and/or high school dropouts with little or no work history, extensive support and counseling is provided, especially in the areas of overcoming employment barriers and resolving family and personal problems that might negatively affect work performance. Peer support groups are used as part of these integral services.

ANEW is operated at the Renton Vocational Technical Institute. The program has developed linkages with local unions and employers as well as with apprentice training committees and business groups to find jobs for graduates, to improve the training program, and to share ideas about getting and keeping women in the trades. Employers also contribute by making presentations in class, conducting "practice" interviews, and recommending appropriate curriculum changes.

Data from a 17-month period ending in November 1989 show a program completion rate of 75 percent and a placement rate of 71 percent. Average wage at placement was $8.49 an hour; 22 percent of the jobs were in apprenticeship programs. Subsequent followup found 63 percent still employed (a loss of only 8 percent since placement).

Joint Urban Manpower Program (JUMP), Inc., New York City, New York

JUMP is an industry-sponsored training program whose existence is tied to Federal and State requirements for equal employment opportunities in publicly funded contracts for engineering services. This has shaped the types of organizations and linkages developed to support JUMP. Four groups are involved: private industry; engineering societies; the Vocational Foundation, Inc. (VFI); and the New York State Department of Transportation (NYSDOT). Although an independent organization, JUMP is completely integrated with VFI, a private, nonprofit social service agency begun in 1936 to provide jobs, training, education, and counseling for high school dropouts and other unemployed young adults. VFI provides organizational, operational, and financial support to JUMP.

JUMP was established in 1969 to provide training to help economically disadvantaged minorities enter the engineering and design professions. The program originally served young adults between the ages of 17 and 21; however, there is no upper age limit now. JUMP provides 400 hours of classroom instruction, plus 400 hours of on-the-job training in drafting or construction

inspection. A critical factor in this program is training only for guaranteed employment. Participating firms hire applicants screened by VFI; the individuals go through the training program while being paid by their employers and, upon successful completion of the program, assume entry-level positions in their companies. Approximately 15 to 25 people participate in each semiannual training cycle. Contracts awarded by NYSDOT to engineering firms include a provision requiring training and employment for minorities and females using State guidelines for the number of trainees and length of training/ employment. The objective of this training requirement is to produce trainees who will be retained by their employers as permanent employees. Construction inspection trainees are afforded an opportunity to become certified by the National Institute for Certification in Engineering Technology (NICET). Firms participating in JUMP reimburse VFI for expenses from their contract funds.

The pay scale for trainees range from $7.50-$10.00 an hour, depending on the individual's experience and skills and the employer's hiring practices. Of the 225 graduates from JUMP since 1980, 72 percent are still in the engineering and design field, many with their original employers. A few have obtained college degrees or been certified as NICET Level II, III, or IV inspectors.

Southeast Institute of Culinary Arts (SICA), St. Augustine, Florida

SICA is 1 of 25 technical vocational programs offered by the St. Augustine Technical Center, a 2-year, postsecondary institution that is part of the Florida public school system. The school operates on a quinmester system, charging students a minimal tuition. The mission of the Center is to provide an educational program that will serve the vocational training needs of each individual student as well as the requirements of business and industry. The Center meets this goal by offering competency-based training programs designed with guidance from advisory boards made up of local business and/or tradespeople who are knowledgeable about competencies that are most in demand in the labor market. The boards also provide and maintain linkages with the private sector that are important for student placement both during training and after graduation.

SICA enjoys an excellent reputation on the east coast and is beginning to be recognized nationally. In 1983, the program won the U.S. Secretary of Education's Award for the most outstanding vocational program in the southeast United States. Begun in 1969, the Institute serves about 90 students annually.

The 2,160-hour curriculum is competency based and largely self-paced. There are 12 core courses in addition to 12 optional, 9-week courses. Training includes the daily operations of the Center's faculty dining room and student cafeteria. Students who complete the program receive a 2-year diploma in culinary arts.

Ninety-two percent of the most recent graduates obtained jobs at higher-than-entry wage levels.

Career Advancement Model

Crouse-Hinds, Syracuse, New York

In collaboration with Onondaga Community College (OCC), the Crouse-Hinds Division of Cooper Industries has designed a training program which addresses three areas: job-specific, skills-specific, and general training needs. All employees—tradesworkers, technicians, and technical professionals—are eligible to participate. Crouse-Hinds has been modernizing its plant facilities with state-of-the-art equipment requiring new skills of employees. Through a wide range of training programs, including three associate degree programs, Crouse-Hinds is using training as a means of preventing worker dislocation for some employees and providing career advancement for others. Most of the training is held onsite at Crouse-Hinds. Instructors work with employees to enhance the curriculum and to design the instructional methodology to meet the learning needs of working adult learners, adapting to their flexible schedules and their diverse learning levels and styles. All craftworkers are encouraged to enter the apprenticeship programs and to pursue a 2-year associate degree through the community college. OCC will give a journeyman 30 hours of college credit towards the degree program.

Approximately 1,400 employees have participated in the more than 240 training and three associate degree programs since 1986.

Genesis Health Ventures, Kennett Square, Pennsylvania

Genesis Health Ventures is a medical services company specializing in geriatric care. Its facilities are located throughout New England and the Mid-Atlantic States. In partnership with Holyoke Community College (in Massachusetts) and 11 other community colleges, Genesis provides a career advancement training

program for nursing assistants through a series of graduated, career ladder steps: a Nursing Assistant Specialist Program, a Senior Nursing Assistant Specialist Program, a Senior Nursing Assistant Specialist Coordinator Program, and an Associate Degree in Nursing Program (successful completion of which qualifies participants to sit for State board examinations and become registered nurses). This career ladder approach to training enhances the self-image of existing workers, provides a retention incentive, helps to recruit new workers, enhances the quality of the services that are provided by the organization, and improves the image of long-term care within the community.

The Nursing Assistant Specialist Program is comprised of a curriculum of 100-contact hours spread over a 6-month period at a rate of 4 to 6 hours per week. Specific attention is focused on professional/vocational skills and on improving self-esteem/self-image. The training includes lectures, discussions, demonstration, and practice (with many visuals), news articles, and other hands-on, task-based learning situations. In addition to college instructors, the program also uses members of Genesis' professional staff as tutors and mentors. As trainees progress through the career ladder system, their pay and responsibility levels increase.

Over 400 employees have completed training since the program started in 1985. One outcome of the program is a dramatic decrease in employee turnover—less than 10 percent among those staff who have participated in the program compared to the typical turnover in the industry of 60 percent.

Prairie State 2000 Authority, Chicago, Illinois

Career advancement training is provided to about 3,900 employees per year through a partnership among the Prairie State 2000 Authority (a State-funded agency that provides loans and grants to companies and training vouchers to individuals); a variety of business/trade associations, community colleges, community-based economic development organizations and unions; and a number of small to medium-sized "primary" manufacturing companies in Illinois that receive funding from Prairie State. Two participating business groups reviewed in this study were the Management Association of Illinois (which acts as a training broker and provider, in addition to providing a variety of other business support services) and the Economic Development Council for the Peoria Area (which acts as a broker between Prairie State and prospective participating employers in its service area).

Over 100 training providers are funded by the Prairie State 2000 Authority, with the most common types of training being: new technology training, especially relating to computerized numerical control (CNC) and office automation; productivity/quality improvement systems training, such as statistical process control (SPC), just-in-time inventory and material resource planning; management and supervisory training related to implementing quality systems; and occupational (traditional vocational) "building block" skills training, which is required to enable a company's workforce to benefit from new technology or productivity/quality improvement training.

All training is customized to the specific needs of employers and employees at each site. Further, employees must be retained for at least 90 days after training is completed if a company is to receive full payment for their training grants. The program for career advancement training began in 1983.

Indian-Meridian Area Vocational-Technical Center, Stillwater, Oklahoma

The Indian-Meridian Area Vocational-Technical Center and the Oklahoma State Department of Vocational-Technical Education have collaborated with seven local employers to provide management and supervisory training on an as-needed basis. The Management Development program is operated like a business—it must generate sufficient income to cover expenses; therefore, employer partners pay an annual retainer fee for services. In addition to the typical management and supervisory training, this program employs a chief executive officer network of local plant managers, special cross-company training sessions, and local industry seminars featuring guest lectures by nationally known management experts. Participating employers are provided customized training, conveniently arranged for them, and they have the opportunity to interact among themselves and with the area vocational-technical center. The program, in operation since 1985, serves several hundred trainees yearly. Among the more sophisticated course offerings provided through the program are statistical process control (SPC), computerized numerical control (CNC), and specialized safety training.

Help In Re-Employment (H.I.R.E.), Milwaukee, Wisconsin

The Milwaukee H.I.R.E. program focuses on retraining and reemployment of workers who have been permanently displaced due to plant closings or layoffs. In general, the program offers dislocated workers assistance in assessing their

skills, upgrading or retraining when necessary, and placement services to reenter the workforce. In addition, the program provides a variety of support services to dislocated workers and their families. Finally, a key component of the program is to reduce the feelings of stress, tension, anxiety about low skill levels, depression, and the sense of being alone that most dislocated workers initially experience, so that participants can benefit from the services offered.

In operation since 1984, H.I.R.E. serves approximately 2,200 dislocated workers annually. The major organizations involved include the Milwaukee Area Technical College, the Wisconsin State Job Service, the Wisconsin State AFL-CIO, and the United Way of Greater Milwaukee. The H.I.R.E. staff of eight professionals and a secretary/typist is provided by the four participating organizations and operates from its own office. Dislocated workers who are certified as eligible enrollees participate in a 4-day orientation during which H.I.R.E. services are explained, career interest and skills assessment tests are conducted, and job search skills are provided. Each participant is assigned a case manager. Based on whether the goal is to seek full-time employment immediately or enroll in some type of training, participants are counseled on possible career options and work with their case manager to refine their job search skills and obtain appropriate employment, or to determine the most appropriate type of training for future employability. Classroom/skills training, on-the-job training, and basic skills remediation are optional, as are support services. About 30 to 40 percent of H.I.R.E. participants enroll in training.

CHARACTERISTICS OF MODEL PROGRAMS

Selected characteristics of the programs examined in this report are presented in the first exhibit. Exhibit 1 displays information on the 10 school-to-work transition programs (7 secondary, 3 postsecondary), and Exhibit 1A depicts the five career advancement programs (organized alphabetically within each category in all exhibits). In actuality, the Los Angeles program bridges all categories, because it is open to both adults and to youth who are still in school. Similarly, the Crouse-Hinds program is both a career advancement and a dislocated worker program.

Although the career advancement programs do not necessarily all share the same focus, they have been grouped together based on their points of similarity. All five programs have a work-based focus with actual work tasks rather than a concentration on traditional classroom education. They all measure program effectiveness based on employers' feedback regarding trainee performance. The companies involved in the career advancement programs seem to invest heavily in human resources as a means to improve their competitiveness, profitability, and productivity.

Target Group

In the school-to-work model, four of the seven secondary programs target "at-risk" students (the definition of "at-risk" is program specific including such factors as working behind grade level, poor grades, ineffective personal/social interaction patterns, attendance problems, behavior problems, dropping out, etc.). These programs are designed to intervene no later than the ninth grade and provide appropriate learning environments that sustain the adolescent through to graduation. Two of the three postsecondary programs serve at-risk adults who tend to be high school dropouts, on public welfare, or only marginally or occasionally employed; some have a history of substance abuse, encounters with the legal system, and/or other difficulties. In both youth and adults, these problems are often accompanied by deficits in basic skills and socialization skills, and by work habits that negatively impact entry into, and progress along, a career path. The school-to-work programs that do not specifically target at-risk populations—Huntsville, Los Angeles, St. Louis, and SICA—nonetheless have at-risk enrollees in their programs.

Initially only half of the selected school-to-work programs were identified as targeting at-risk youth and adults. However, as the study progressed, researchers found that every program was serving disadvantaged at-risk clients/students and some programs were serving them in large numbers. Although the reasons for this occurrence are not quantified, four factors seem to contribute to this situation as follows:

EXHIBIT 1

PROFILE OF SCHOOL-TO-WORK PROGRAMS

Program	Program Model	Target Group	Number Served Annually	Service Area	Years in Operation	Number of Staff
Huntsville School-to-Apprenticeship	School-to-work (Secondary level)	High school seniors with at least 1 year of vocational training in an apprenticeable trade	6 (increasing to 12 in 1990-91)	Huntsville, AL metropolitan area	5	2 full-time instructors (who also teach other students) 1 part-time instructor (for related instruction) 1 part-time program coordinator (who is also Center's assistant administrator)
Los Angeles Adult Regional and Skills Center Program	School-to-work (Secondary and postsecondary)	All students Adults	408,624	Los Angeles, CA metropolitan area	20	3,000 total (instructors, administrators, counselors)
Louisville Partnership	School-to-work (Secondary)	9-12 grade at-risk students	2,000	Louisville, KY metropolitan area	2	21 career planners (1 per school) Partnership director 3 support staff 2 program directors (Mentoring and Student Career Information)
Philadelphia High School Academies	School-to-work (Secondary)	9-12 grade disadvantaged inner-city students	1,750 (increasing to 3,600 by 1992 and 5,000 by 1995)	Philadelphia, PA metropolitan area	21	President 12 staff including 3 program directors (to oversee academies) Lead and regular teachers at each academy
Portland Investment	School-to-work (Secondary)	Low-income, minority, at-risk youths	2,300	Portland, OR metropolitan area	6	Various partners have liaison/ coordinating representatives
Project COFFEE	School-to-work (Secondary)	9-12 grade at-risk students	110	16 school districts in Western Massachusetts	11	Project director 6 academic teachers 6 occupational training teachers 1 full-time counselor 4 instructional aides

EXHIBIT 1

PROFILE OF SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Program Model	Target Group	Number Served Annually	Service Area	Years in Operation	Number of Staff
St. Louis Off-Campus Work-Study	School-to-work (Secondary)	High school seniors (including at-risk)	100	St. Louis, MO metropolitan area	22	Full-time program administrator Secretary 9 teachers plus Company coordinators and supervisors
ANEW	Postsecondary	Low-income, minority women (16-60 years old)	100 (2 cycles per year of 50 each)	King County, WA	10	Full-time director Employment coordinator Employment counselor 2 full-time skills instructors Part-time math tutor Part-time strength-building instructor
JUMP	Postsecondary	Economically disadvantaged, minority adults (17 years and older)	30-50 (2 cycles per year of 15-25 each)	New York City, NY metropolitan area	21	1 full-time coordinating counselor 1 full-time instructor
SICA	Postsecondary	All students Adults	90	St. Augustine, FL metropolitan area State of Florida	21	2 Administrators 3 secretaries; 1 clerk typist 23 instructors 4 wearwashers (kitchen aides)

EXHIBIT 1A

PROFILE OF CAREER ADVANCEMENT PROGRAMS

Program	Program Model	Target Group	Number Served Annually	Service Area	Years in Operation	Number of Staff
Crouse-Hinds/Cooper Industries	Career advancement	All employees—trade workers, technicians, and technical professionals	1,400	Crouse-Hinds plant Syracuse, NY	4	CH training manager Onondaga Community College assistant director for community education Secretary Instructors
Genesis Health Ventures	Career advancement	Nursing Assistants	438 (over 2 years)	New England and mid-Atlantic region of the United States	5	Instructor Program coordinator
Illinois Prairie State 2000 Employer-based Program	Career advancement	Existing employees of financially qualifying "primary" companies who must be retrained in new technologies or productivity/quality improvement systems in order to remain competitive	3,900	State of Illinois	7	6½ FTE's **Central Office/Chicago** 1 full-time CEO 1 full-time fiscal officer 1 full-time data coordinator 1 full-time contracts coordinator 1 full-time secretary **Northern Illinois Field/Chicago Metro** 3/4-time field representative **Central Illinois Field/ Galesburg** 1/2-time field representative **Southern Illinois Field/Herrin** 1/4-time field representative

EXHIBIT 1A

PROFILE OF CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Program Model	Target Group	Number Served Annually	Service Area	Years in Operation	Number of Staff
Indian-Meridian AVTC	Career advancement	Local industry managers and supervisors	Estimated 850	Stillwater, OK area	5	One lead specialist, an assistant (position remains vacant) and a trainer Guest lecturers (nationally known figures) also are used
Milwaukee H.I.R.E. Program	Dislocated worker	Laid off (or soon to be laid off) workers primarily those in low-skilled, blue-collar type occupations	2,200	Milwaukee, WI	6	8 professionals, 1 secretary **Milwaukee Area Technical College** (3 staff persons)—orientation, skills assessment, job search skills training, career counseling **Job Service** (2 staff persons)—career counseling, job search assistance, placement assistance **AFL-CIO** (2 staff persons)—management and coordination **United Way** (1 staff person)—counseling and referrals

- Many of the programs serve urban areas, and the demographics in these areas reflect increasing proportions of disadvantaged to nondisadvantaged students.

- Much of the money available to support programs targets disadvantaged populations.

- Disproportionate numbers of disadvantaged students may be being directed into work/skills/vocational programs.

- Some employers participate in the programs to meet affirmative action goals.

Four of the career advancement programs target workers within the participating companies. However, two programs (Crouse-Hinds and Prairie State 2000) target all employees, including tradesworkers, technicians, and technical professionals, whereas the others focus on specific occupations or occupational paths (e.g., Genesis' nursing assistants and other nursing specialties) or specific levels within the companies (e.g., Stillwater's local industry managers and supervisors). H.I.R.E., the fifth program, specifically targets laid off (or soon to be laid off) workers, primarily those in low-skilled, blue-collar type occupations. The type of corporate employee population served has a major effect on program design and implementation; in fact, it dictates the character and content of the program.

Numbers Served

There is a wide range in program size, as defined by the number of trainees served annually. The majority of school-to-work programs deal with groups of about 100 or fewer. The Louisville Partnership, the Philadelphia High School Academies, and the Portland Investment projects serve about 2,000 students each. Huntsville, with 6 students, and Los Angeles, with more than 400,000, are on opposite ends of the spectrum. In the school-to-work programs, size is not a function of program model, but is more related to the population density of the geographic area served and to the extent to which the program examined is a broad, community-based program that reflects local labor needs.

Size in the career advancement programs is determined more by the number of employees and the needs of the participating companies, as well as the capacity of the service providers, than by program design. Genesis serves 400; Crouse-Hinds serves 1,400; Prairie State 2000 serves 3,900; Stillwater serves an estimated 850; and Milwaukee's H.I.R.E. program serves 2,200.

Service Area

In the school-to-work model, each program's service area is defined as the larger metropolitan area (or multicounty surroundings) within which the program is located. Expansion of the service area to include the larger community reflects, in part, the need to respond to the labor demands of many employers, including smaller employers, scattered around the area. All of the secondary and postsecondary programs in the study serve a number of different employers and report that, although one particular employer may have played a leading role at various stages in the life of the program, a broad base of employers is critical to sustain program activity.

The service area for career advancement programs varies, depending on the labor market needs to which they respond. For example, the Genesis Health Ventures program serves any of its nursing and retirement homes located in the Middle Atlantic and Northeastern United States. The Crouse-Hinds program serves its plant in Syracuse, New York. Prairie State 2000, a multiemployer program, trains employees in companies across Illinois that are funded by the Prairie State 2000 Authority. The service area for the Indian-Meridian Area Vocational Technical School is the general Stillwater, Oklahoma, area. The H.I.R.E. program in Milwaukee serves specially targeted groups of employees who are already, or about to become, dislocated from companies located in the metropolitan area.

Years of Operation

Most of the school-to-work programs examined have been in operation for a number of years. In fact, on average, the programs in our sample are 14 years old. The newest school-to-work program, the Louisville Partnership, has concluded its second year of operation, and the oldest, in St. Louis, has been operating for 22 years. The career advancement programs are typically newer than the school-to-work programs. The five programs reviewed have been in operation for 5 years on average (as calculated from the time of the site visits in mid-1990).

Number of Staff

The number of staff involved in each program varies as a function of the number of trainees served, the number of facilities used for program operation, the types of training offered, and funding levels. A clear pattern in the school-to-work programs is the designation of one individual to direct and coordinate activities overall, with site-specific "managers" in the form of lead teachers, career planners, or instructors when multiple locations are involved. In the two postsecondary programs that are housed at a single location, ANEW and JUMP, this structure does not apply. Another pattern observed in many of the programs was the use of community figures to teach seminars or make presentations on work maturity and employability topics,

such as drug abuse/drugs in the work place, world-of-work expectations, etc., or to serve as role models for the trainees.

All of the career advancement programs appear to be designed with a program coordinator or training manager, a designated number of trainers, and depending on total size, some administrative or secretarial support. Some also have data managers or fiscal specialists. There are no other discernible patterns in terms of staffing across the programs reviewed. The Stillwater program supplements its staff capacities through the use of nationally known guest lecturers. Genesis expands its staff capabilities by involving many other employees as mentors for the trainees. The Milwaukee H.I.R.E. program, in addition to its own staff, also utilizes the program staff of the various partners, including the Milwaukee Area Technical College, the Job Service, the AFL-CIO, and the United Way.

2. LINKAGES WITHIN PROGRAMS

This study focuses on training programs that have established a formal partnership, or linkage, with educational institutions, employers, and other groups. The purpose of the study is to find out why and how the partnerships developed and how they operate, and to learn the lessons that will facilitate replication of similar partnerships elsewhere. Chapter 2 examines who the partners are, their major responsibilities and activities, mechanisms used to maintain the linkages, and the stages of development observed across these partnerships.

PARTNERS IN THE MODEL PROGRAMS

The following four categories of partners are found to be associated with the model programs:

- The program itself;
- The educational institutions;
- Private industry (employers); and
- Trade, government, and community organizations.

Although each partner seems to be involved for different reasons, each plays an important role and contributes valuable resources to the ongoing linkage activity.

Partners in School-to-Work Programs

The partner organizations identified with each program are presented in Exhibit 2. The information in the exhibit suggests several important findings regarding the school-to-work programs. First, each model program has a specific name and operates as a distinct entity within the broader context of the education and employer communities. Second, a majority of the programs are operated within or in conjunction with a single school system or educational institution. For example, the Philadelphia High School Academies (PHSA) Project serves the entire Philadelphia School District; the Portland Investment (PI) deals with the Portland Public Schools; and the Louisville Partnership deals with the entire Jefferson County Public School System. Only the Cooperative Federation for Educational Experiences (Project COFFEE) serves multiple school systems, although one school system, the Oxford Public Schools, is responsible for implementation of the program. The other 17 school districts aligned with Project COFFEE are served as clients to whom COFFEE provides services.

Third, multiple employers serve as partners in each model program, although the actual number of participating employers is greatly varied. The largest group of

EXHIBIT 2

PARTNERS IN SCHOOL-TO-WORK PROGRAMS

Program	Educational Institutions	Employer/Industry	Trade, Governmental and Community Groups
Huntsville School-to-Apprenticeship	Huntsville Center for Technology Huntsville Public Schools	Small business community	Association of Builders and Contractors; State Department of Education; Bureau of Apprenticeship and Training
Los Angeles Adult Regional and Skills Center Program	Los Angeles Unified School District	Several thousand area employers	Community/civic organizations; Office of the Mayor; City utility departments; Chamber of Commerce
Louisville Partnership	Jefferson County Public Schools	Area employers	City of Louisville; Jefferson County Government; Private Industry Council; Chamber of Commerce and Leadership Louisville; National Alliance of Business; Metro United Way
Philadelphia High School Academies	Philadelphia School District	15 area businesses (especially big business)	Philadelphia Committee to Support School; American Federation of Teachers
Portland Investment	Portland Public Schools	Portland area business community	City of Portland; Chamber of Commerce; United Way; Multnomah County; PIC; Urban League
Project COFFEE	Oxford Public Schools Fifteen other school districts	Digital Equipment Several dozen local businesses	Chamber of Commerce; Family Assistance Programs; Local Government and court system; Civic Organizations
St. Louis Off-Campus Work-Study	St. Louis Public Schools	McGraw-Hill Citicorp City of St. Louis Standard Oil Shell Oil American Institute of Banking Ralston Purina	Danforth Foundation
ANEW	Renton Vocational Technical Institute	Local unions Local business Apprenticeship Coordinators	Chamber of Commerce; Regional Government
JUMP	Vocational Foundation, Inc.	NY State Department of Transportation Engineering societies Engineering firms	
SICA	St. Augustine Technical Center	Hospitality and hotel business community	American Culinary Federation; Local, regional and state government; PIC and JTPA

employers is found in the Los Angeles Adult Regional Occupational and Skill Center Program, where several thousand local employers participate to some degree as a partner in the program. The Joint Urban Manpower Program (JUMP), which includes the New York State Department of Transportation (NYSDOT) and several dozen engineering firms, represents a midrange in the number of employer partners. The Huntsville School-to-Apprenticeship program, with about eight employers as partners, is at the lower end of the range, in part because, upon graduation the students register as apprentices in full-time permanent jobs that the employers guarantee.

Larger employers within the service area usually are most involved with implementation of the programs. Employers who offer on-the-job training (OJT) positions tend to be medium to large employers who hire many employees, rather than small employers with only a few employees. The larger employers can more easily afford to contribute the supervisory time needed in the programs. Moreover, they have access to resources, primarily as a function of dollar and equipment volume, that are often passed on to the training program. Perhaps the most significant reason that larger employers seem to be drawn into the partnerships is their potential to provide greater numbers of work-study jobs for trainees and their need for larger numbers of skilled, entry-level employees. However, smaller employers also benefit from the programs. Small employers frequently hire program graduates and/or provide part-time jobs to participants while they are in school. Additionally, the association of smaller employers within the partnership can lead to a pooling of resources similar to those available from larger individual employers.

The fourth finding regarding school-to-work programs is that most of the programs involve a number of organizations in the category comprised of trade, government, and community groups. For example, the PI involves the Chamber of Commerce, the Urban League, the City of Portland, the United Way, the local county government, and the Private Industry Council. Project COFFEE's partners include not only the Chamber of Commerce, civic organizations, and local government, but also the court system and the Federal, State, local, and charitable social service and family assistance programs in western Massachusetts. Several programs, such as the Southeast Institute of Culinary Arts (SICA) and the Huntsville School to Apprenticeship Program, also involve trade associations for the industries served through the training.

One effect of involving community, trade, and government organizations as partners in the school-to-work programs is an increase in the available resource base. More important, however, is the effect of their involvement on the other partners—school administrators and industry leaders whose immediate horizons are expanded. By including community, trade, and government organizations as partners, the project experiences heightened expectations about outcomes and finds more public attention

focused on its activity. One result of this increased attention is that administrators in partner organizations give more attention to, and place higher priority on, the program when compared to their other daily activities.

Partners in Career Advancement Programs

All five career advancement programs are comprised of partnerships among industry and educational institutions, with varying degrees of participation from other trade, government, and community groups, as shown in Exhibit 2A. As in the school-to-work transition programs, each career advancement program functions as a discrete program within the broader context of the educational institution and participating employer. These programs are driven by the skill needs of the specific companies. For example, Genesis Health Ventures serves its chain of nursing and retirement homes through programs at Holyoke Community College and similar 2-year colleges in other geographic areas where Genesis is located. Crouse-Hinds, a division of Cooper Industries, has collaborated with Onondaga Community College (OCC) to upgrade the skills of its employees; the New York State Education Department and the State Economic Development Department play minor roles, and a few other vendors, other colleges, and technical institutes or consultants are deployed as needed.

The Illinois Prairie State 2000 Authority (a State funding agency) provides funds to various companies in Illinois with workplace training needs. These predominantly small to medium-sized "primary" manufacturing companies are provided with customized training by over 100 training providers, including the Management Association of Illinois (MAI), in-house company programs, community colleges, business/trade associations, community-based economic development organizations, equipment vendors, proprietary technical schools, the parent company, and unions. The program in Stillwater, Oklahoma, is a partnership between the Indian-Meridian Area Vocational Technical Center and seven major employing organizations in the Stillwater area. State-level assistance is provided by the Oklahoma State Department of Vocational-Technical Education.

All the model programs in the study are market driven; however, the school-to-work programs tend to include more employer partners and community groups than career advancement programs.

Help In Re-Employment (H.I.R.E.) trains dislocated workers through the Milwaukee Area Technical College. Participating employers in H.I.R.E. include representatives from business and industry who serve on an advisory group, as well as specific businesses facing plant closings or layoffs and employers looking to hire new employees. A number of trade, government, and community organizations also serve

EXHIBIT 2A

PARTNERS IN CAREER ADVANCEMENT PROGRAMS

Program	Educational Institutions	Employer/Industry	Trade, Governmental and Community Groups
Crouse-Hinds/Cooper Industries	Onondaga Community College CH President serves on board of OCC	Crouse-Hinds, Electrical Construction Materials, a division of Cooper Industries	State Education Department; State Economic Development Department (minor roles); Some vendors, other colleges and technical institutes, and consultants
Genesis Health Ventures	Holyoke Community College plus 11 other community colleges located close to corporate operations	Genesis Health Ventures, a medical services company specializing in geriatric care	Advisory role
Illinois Prairie State 2000 Employer-based Program	Over 100 training providers, including the Management Association of Illinois, in-house programs, community colleges, community-based economic development organizations, equipment vendors, proprietary technical schools, and unions	Various "primary" companies in Illinois that are funded by Prairie State 2000 Authority and have workplace training needs	Prairie State 2000 Authority (a state funding agency); Management Association of Illinois (serves as a broker with companies, as well as a training provider); The Economic Development Council for the Peoria area (serves as a broker with companies)
Indian-Meridian AVTC	Indian-Meridian Area Vocational-Technical Center (AVTC)	Armstrong World Industries Autoquip Central Rural Electric Cooperative Charles Machine Works Mercury Marine Moore Business Forms Oberlin Color Press	Oklahoma State Department of Vocational-Technical Education
Milwaukee H.I.R.E. Program	Milwaukee Area Technical College (MATC)	Dozens of businesses facing plant closings or layoffs, or looking to hire new employees	Wisconsin State Job Service; Wisconsin State AFL-CIO; United Way of Greater Milwaukee

as partners, including the Wisconsin State Job Service, the Wisconsin State AFL-CIO, and the United Way of Greater Milwaukee.

The school-to-work programs also are market driven (i.e., reflects the employment needs and opportunities in the community), but usually are designed to meet regional employer needs (e.g., Louisville), or the needs of multiple employers within a given industry (e.g., the Philadelphia Academy Banking Program). Therefore, they tend to include more employer partners than the career advancement programs. Further, school-to-work programs tend to reach out to other community resources and institutions to a greater degree than career advancement programs, and frequently will involve social service agencies in the effort.

Major Responsibilities and Activities of Involved Organizations

Each exemplary program reveals a division of labor regarding the contributions of each type of partner. The division of labor is fairly consistent across both the school-to-work and career advancement programs, despite the different focus and mode of operation between the two program models. Typically, in the school-to-work model, the training program is given responsibility for day-to-day operations. Its staff teaches students, coordinates activities, administers budgets, deals with disciplinary problems, and attempts to place graduates. Additionally, the program director and other personnel maintain liaison with the partners as part of their formal responsibility.

Educational institutions, the second partner category, provide services and play similar roles in both program models. Typically, education partners provide overall program administration and the staff who actually provide the instruction as well as accounting/recordkeeping services, scheduling and logistical support, storage and classroom space (in some cases), and some equipment. Often, the board of directors or advisory council responsible for program oversight and policy includes administrators representing the educational institutions.

Employer partners also provide similar services and assume similar roles across the model programs. In the school-to-work programs, their specific contributions include provision of the following:

- Summer jobs and part-time jobs during school, and full-time jobs after graduation;
- Supervisors and other staff to work with trainees and monitor their in-company performance;

- Performance expectations regarding quality, discipline, and work culture requirements;
- Members of advisory committees, boards of directors, or governing councils for the program;
- Funding for the program;
- Equipment and supplies at the workplace or simulated worksites;
- Workplace training and orientation, which may include tours, in-school presentations, practice interviews, simulated training, simulated work processes, and actual on-the-job experience;
- Overall vision, leadership, and direction for the program;
- Staff to work on program needs and activities;
- Expanded contacts within the greater community; and
- Expertise, particularly in the areas of curriculum development, instructor training and work orientation, employment projections, and program planning.

In the career advancement programs, the employer partner contributions are very similar to those in school-to-work programs. However, with the exception of H.I.R.E., the trainees are full-time company employees, and so do not require special supervision or workplace orientation. In the Genesis program, special supervision and guidance is required in order to facilitate graduates into the system. Also, some of the trainees may be part-time.

The fourth set of partners, the trade, government, and community organizations, share in the overall division of labor to a different degree than the employer or school partners in the school-to-work model. In most situations, the trade, government, and community partners primarily serve a facilitative role. They enable the program to expand its realm of contacts in the community, they help access funds or resources, and in the school-to-work programs, they refer jobs and/or applicants to the programs. In some situations, partners in this fourth category also encourage industry representatives and educators to work together to develop goals and champion the cause of underserved individuals. In many cases, a local government entity, such as the Office of the Mayor in Los Angeles, Portland, and Louisville, and the Economic Development Council in Peoria, serves as an impartial broker to help the other partners crystalize and articulate their particular mission, needs, and goals within the

project. They also try to help craft win-win situations so that all partners can realize both the program goals and their organizational goals from the partnership activity. Sometimes community partners also provide seed money to assist in the initial development of the partnership.

Trade, government, and community groups serve a less dominant role in career advancement programs. For example, in the Genesis program, these partners serve in an advisory capacity on curriculum program design because of licensure and certification of trainees. The Prairie State 2000 Programs in Illinois are particularly interesting in that the Economic Development Council for the Peoria Area acts as a broker with companies, and the role of the MAI serves in a dual capacity as a broker with companies and a training provider.

Mechanisms Used To Maintain Linkages

Seven mechanisms that sustain partnerships have been identified in the study and are termed "linkage vehicles." These are as follows:

- Personal contact and networking;
- Fundraising activities and funding mechanisms;
- Planning procedures/activities;
- Skilled personnel;
- Contracts, memos of understanding, and other agreements;
- Advisory committees and/or board of directors and/or councils; and
- Newsletters/media.

Personal Contact and Networking

It is hard to imagine any partnership existing without frequent personal contact among the partners. However, successful programs seem to be characterized by an inordinate amount of personal contact, usually maintained by daily phone conversation, and centering around program operations and administrative matters. More complicated issues, such as promoting the program, resolving problems, or presenting new proposals or ideas, usually are handled face-to-face on a weekly or biweekly basis. Both types of contact are viewed as important. The daily contact keeps everyone "in-the-know" and generates a feeling of ownership. Face-to-face contacts are important because, as one respondent remarked, that is "the way important matters are resolved in a *business* organization."

Successful programs seem to be characterized by frequent personal contact among the partners.

Not only do personal contacts occur between the leaders, chief executive officers (CEOs), and superintendents of the partner organizations, but personal contacts occur at many "boundary-level positions" throughout the organizations. Teachers, industry vice presidents, managers and supervisors, school principals, and project staff (e.g., counselors, trainers) all may communicate with one another. Thus, all levels of the program are integrated in day-to-day activities. Respondents mentioned two important outcomes of these interaction patterns:

- Everyone feels ownership of, responsibility for, and commitment to the program; and

- Everyone is kept current regarding ongoing activities and developments.

In addition, the researchers noted that this communication pattern has two other critical impacts. First, the programs become "institutionalized"; in other words, programs are not personality dependent. If a leader (e.g., a dean, CEO, or superintendent) moves to a new job, the program continues. Second, the communication is accompanied by diffuse decisionmaking that spurs individual initiative and feelings of ownership. Personnel at all levels of responsibility not only talk, but can and do make things happen.

Personal contact through participation in civic organizations also serves as a vehicle to facilitate partnerships. In many programs, school personnel such as administrators and teachers are encouraged or required to be involved in civic organizations as a means of promoting the program and the school. For example, in Portland, all partners were "required" to present a video about the program in every civic and community organization to which they belonged; in COFFEE, civic organizations, such as the Chamber of Commerce and the Kiwanis Club, provide leads for new partners. Often programs actually undertake civic work as part of their mission. The Los Angeles Adult Program regularly participates in local activities. Recently they supported the survey conducted by the Bureau of the Census by creating educational and informational materials and supplying manpower. Apprenticeship and Nontraditional Employment for Women (ANEW) staff are members of trade associations, like the Associated General Contractors of America. Through this type of continuing involvement, personal relationships are cemented and support for the program is gained.

In several programs, networking is actually sponsored by the program. The Indian-Meridian Program sponsors seminars for local industry leaders around contemporary topics, such as organizational change, as a strategy for stimulating dialog regarding common needs and goals and implications for the program. Prairie State 2000 uses a roundtable of CEO's to guide recruitment and promotion activities. Networks in

the Louisville and Portland programs not only bring employers into the programs, but also help to secure resources, recommend policy, and adjust program design.

In some school-to-work programs, personal contact with the educational institution has helped many local employers find new employees. For instance, SICA frequently serves as a kind of hiring hall where employers call to find new employees or temporary workers. In the ANEW program, there are program graduates who are now in personnel positions in partner companies and call ANEW to find new employees, having come that route themselves.

Fundraising Activity and Funding Mechanisms

Another linkage vehicle is fundraising activity that brings all the partners together to work toward a common goal. For example, in Louisville, Portland, Project ANEW, and St. Louis, partners were able to work together to secure seed money that they used to plan and implement initial versions of the program.

However, the money itself may not have been as important as the process of seeking the funding. Even when funds were not forthcoming, the fundraising activity brought the partners together, focused on the program mission, and stimulated partner activity to accommodate the mission within the structures of the individual companies. For example, in the Genesis program, the process of seeking money helped identify and resolve organizational differences among partners that could have inhibited or limited the partnership. In the Prairie State 2000 program, funding itself is a linkage mechanism because the Prairie State effort links employers by providing funding, training, and brokering of services.

Planning Procedures

Planning procedures also serve as a linkage vehicle because, in every exemplary program, the partners are involved in intensive planning procedures. For example, in Los Angeles, the partners serve on advisory committees that meet several times a year to deal specifically with the issue of program planning. In both the Louisville Partnership and Huntsville School to Apprenticeship Program, the partners are involved in an elaborate survey projecting employment needs, wage demands, and new skills that will be necessary for entry-level workers. Project ANEW has begun an extensive 5-year planning effort involving each member of the partnership.

In Louisville, the partnership probably owes its initial success to the extensive planning activity accomplished under the direction of the chair of the partnership. Based primarily on his contacts, a task force was established to contact hundreds of employers by letter, phone call, and personal visit, to secure commitments of jobs, resources, and continuing support for the program. At the same time, an attempt was

made to discern the specific employment needs, skill requirements, and suggestions of those employers in order to incorporate their ideas into the overall project plan.

Usually the planning process results in a jointly crafted planning document that serves the following three functions:

- To guide ongoing program activity;
- To extend program ownership to all members of the partnership; and
- To define the roles that each partner will play.

Exhibit 3 is an excerpt from a fairly typical planning document used in school-to-work programs. It focuses attention on the program mission, states expectations for the project, and demands that the effort be given priority among the ongoing activities of the partner organizations.

Skilled Personnel

Another linkage vehicle which is shared by the model programs is the use of skilled personnel who play similar roles within partner organizations. Each program has a director (or equivalent), paid for by project funds, whose responsibilities are project administration and liaison with other members of the partnership. In the initial development of the partnership, these were sometimes unpaid positions where executives were "borrowed" from partner organizations in order to use their particular skills. For example, in the Louisville and Philadelphia programs, well-known executives in the community lent their time to the partnership in order to line up business support for the program and as a way to bring a business perspective to the initiative. In these two programs, much of the credit for the success of the partnership has been attributed to the ability of those "borrowed" executives.

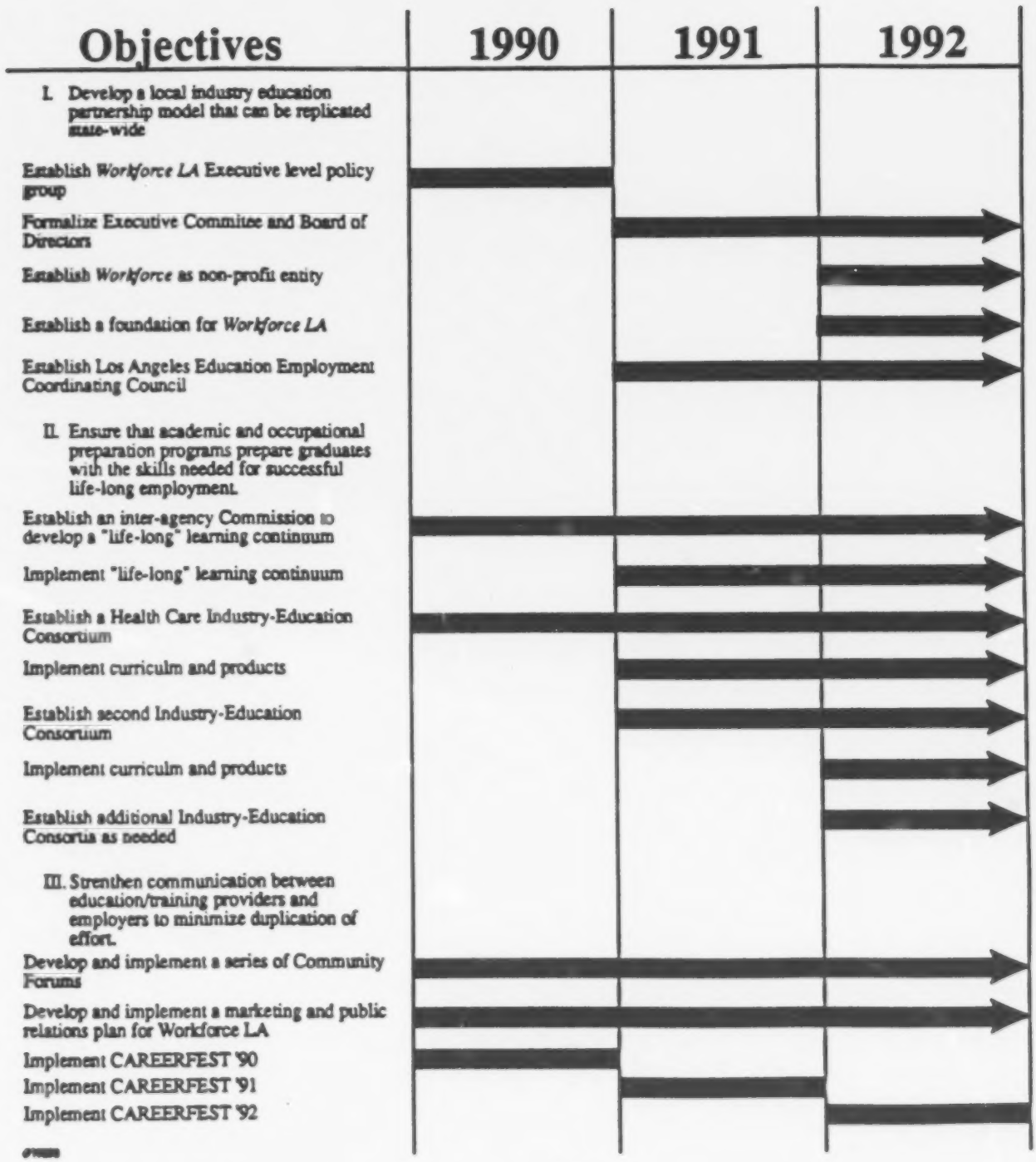
Each program has a director (or equivalent), paid for by project funds, whose responsibilities are project administration and liaison with other members of the partnership.

The involvement of individuals with similar capabilities seems to be critical to the continuing success of each exemplary project. In most instances, the director serves as the chief spokesperson with the media and with other members of the partnership presenting new initiatives. Therefore, directors must have not only excellent management skills, but sales and public relations skills as well.

In many programs, staff who deal with the students have other, varied duties. For example, in the Louisville partnership, a career planner is located at all but two of the District's 23 high schools. That person is responsible for providing direct services to the students (e.g., teaching, counseling, motivating), contributing leader-

Exhibit 3: Sample Planning Document
School-to-Work Program

Workforce LA
A Three-Year Strategic Plan


Objectives
1990
1991
1992
I. Develop a local industry education partnership model that can be replicated state-wide
Establish *Workforce LA* Executive level policy group
Formalize Executive Commitee and Board of Directors
Establish *Workforce* as non-profit entity
Establish a foundation for *Workforce LA*
Establish Los Angeles Education Employment Coordinating Council
II. Ensure that academic and occupational preparation programs prepare graduates with the skills needed for successful life-long employment.
Establish an inter-agency Commission to develop a "life-long" learning continuum
Implement "life-long" learning continuum
Establish a Health Care Industry-Education Consortium
Implement curriculm and products
Establish second Industry-Education Consortium
Implement curriculm and products
Establish additional Industry-Education Consortia as needed
III. Strenthen communication between education/training providers and employers to minimize duplication of effort.
Develop and implement a series of Community Forums
Develop and implement a marketing and public relations plan for Workforce LA
Implement CAREERFEST '90
Implement CAREERFEST '91
Implement CAREERFEST '92

ship to the project, and maintaining communication with employers to secure placements for the student and resources for the program. Obviously, staff in this type of position must have a variety of finely tuned skills. In other programs, such as Los Angeles and COFFEE, the instructors shoulder a major portion of the interaction responsibilities with employer partners and assist both in placing students and in generating new initiatives within the program.

Contracts, Memos of Understanding, and Other Agreements

The exemplary programs are characterized by a formal designation for the role of each partner, including the services and resources that each will provide. Typically, these contracts specify division of labor among the partners, resource allocation, and responsibility for outcomes. Some also provide management tools such as Pert charts and staff loading information that can be used to monitor program progress. The use of contracts also has become standard procedure in a number of programs that provide auxiliary services, such as Project COFFEE, where the project offers transportation services to partner school systems.

In many programs, program implementation activities also are covered in memos of understanding signed by all parties. Exhibit 4 illustrates a portion of a typical memo of understanding in a career advancement program in which the partners agree and set forth in writing goals and objectives, strategies to meet the goals, activities that are related to those strategies, and target dates for completion of activities.

When asked about the necessity for formal arrangements, administrators of the exemplary programs were clear in their recommendation. Without fail, they said it is simply "good business" to formally stipulate specific activities; although formalized arrangements may not be necessary in many situations, they offer a better audit trail and can help ensure program longevity even if officials in the partner organizations change.

Advisory Committees/Boards of Directors/Councils

A linkage vehicle used by every program in the study is the formation and use of advisory committees, boards of directors, or councils made up of designated representatives from each partner organization. These groups meet periodically to deal with a variety of issues related to establishing policy and finding resources for the program. For example, SICA's Advisory Board has eight members who are restaurant owners, executive chefs, sales representatives for restaurant supply companies, and the Apprenticeship Director for the American Culinary Federation. The board meets officially four times per year, but the members are active in various aspects of the program on a continuing basis and initiate frequent personal contact. Among the activities the board undertakes are the following:

EXHIBIT 4

PORTION OF TYPICAL AGREEMENT FOR CAREER ADVANCEMENT PROGRAMS

GOALS	OBJECTIVES/STRATEGIES	ACTIVITIES	LEAD RESPONSIBILITY	COMPLETION TIME LINE
3. Strengthen communication between education/training providers and the health care industry so that mutual resources are pooled and used more effectively.	3.a. Establish a Communications Team to pursue project activities that will increase information sharing. The Team will also serve as a problem resolution team.	3.a.1. Develop an information seminar for teachers and counselors to discuss issues pertaining to the health care industry.	School	5-30-90
		3.a.2. Develop, for the selected health care cluster, a "Career Awareness Kit" of materials for school staff and student use related to industry-specific career ladder information, employment opportunities, and post-secondary options.	School Employer	7-31-90
		3.a.3. Develop options for faculty to remain current with industry changes and emerging occupations.	School	7-31-90
		3.a.4. Continue as an ongoing team to recommend resolutions to issues involving funding, staffing, facilities, hiring practices, etc.	School Employer	ongoing

- Determining equipment needs for the program;
- Securing bids for equipment;
- Providing internships and jobs for students;
- Making occasional presentations in the classroom;
- Reviewing the curricula;
- Offering projections of growth and direction for the industry-at-large; and
- Facilitating the securing of resources for the program.

The functions of the advisory group are fairly consistent across programs. In the PHSA program, board functions were almost identical to SICA board functions except that in Philadelphia the board also helps set policy for the program and acts on personnel decisions. A similar role is played by the JUMP board.

Another function of most advisory groups is public relations. Board members facilitate contacts within the community and help establish a favorable climate in which the program can operate. Board members also help to bring new employer partners into the organization and help to "cut the red tape" when programs must deal with bureaucracies.

Overall membership on any given board or advisory committee ranges from about eight to forty members. The typical board meeting is a combination of social and business activities. For example, a board meeting attended by one of our project staff had 100 percent attendance of board members and took place at a formal luncheon. At this luncheon meeting, the board reviewed with the program staff the activities of the previous and upcoming quarters, and then turned its attention to two other critical issues. First, the members considered local industry growth and the need for trained applicants to fill entry-level positions in the organizations represented by the members. They discussed the issue with a consultant brought in to offer suggestions regarding the hiring situation in the region. Having dealt with the issue of employment projections, the board examined the curriculum in relation to new skills needed by entry-level workers. Revised skill profiles were developed for several occupations within the occupational cluster addressed by the training program. The meeting concluded with each board member providing specific feedback regarding both program operations and the proceedings of the meeting.

Newsletters/Media

All of the program studies use the media to some degree for a number of purposes. Some programs, such as the Los Angeles Adult Regional Occupational and Skills Center, use the media for trainee outreach and recruitment as well as for developing good public relations in the community. Media efforts include posters, brochures, videos, newspaper articles, public service and public education announcements, and paid advertising. In some programs, media use is extended "internally" through organizational newsletters that keep partners and auxiliary groups informed about program activities. In addition, newsletters also are used to recruit participants into the training program, to recruit new organizational members that enable an extension of services to trainees, and to reduce potential internal, program-related turf battles. For example, in the Genesis program, a monthly newsletter highlights existing training activities, presents future opportunities, and recognizes the contributions and participation of the trainers and other staff who are associated with the program, as well as the efforts of the trainees.

"Good press" is often cited as a mechanism to promote and maintain the partnership. In some locations, the local paper has featured a series of articles describing different aspects of the program, such as a successful graduate or a satisfied employer.

DEVELOPMENT OF THE PARTNERSHIPS

All the partnerships examined in this study were market driven and arose in response to a specific community/employer need. The partnerships developed in three phases, often spread over 7 years or more. Each phase witnessed a fairly consistent pattern of activity. That is, within our limited data base, similar types of problem clarification and resolution activities took place at approximately the same stage of development. This suggests that the partnerships, like organizations, have moderately predictable life cycles that may make it possible to anticipate needs, problems, and solutions, and act proactively when creating new partnerships.

Partnerships, like organizations, have moderately predictable life cycles that may make it possible to anticipate needs, problems, and solutions, and act proactively when creating new partnerships.

Phase I

Phase I in the development of the partnership seems to include five activities that often are concurrent or overlap during the 2- to 3-year project startup period. First, one or more individuals or groups with an idea or recognition of a specific need worked in isolation to respond to that need. In time, the individuals or groups encountered one another, shared ideas, and found a common thread of understanding.

Out of this interaction came a second kind of activity, a convening of a larger group whose members shared a common concern. As the groups began to work together, they developed a knowledge base regarding the issues related to the problem, began to craft a vision of mission for the future, and started to reach consensus on the intended outcome of any collaborative activities. Often, this meant working and reworking ideas to meet the needs of the partners as well as those of the target population. Out of this process came a shared vision of the program's intended purpose, as well as a commitment of time and resources to pursue the goals of the newly formed partnership.

At this juncture, usually a third activity occurred. A spokesperson was chosen by the group, or a broker emerged, to take the process forward. The spokesperson or broker assumed responsibility for orchestrating, and often for managing, group activity. In many instances, the broker also took on responsibility for maintaining continuing group operations.

The fourth activity in Phase I was to seek seed money for the planning process. Within the programs studied, seed money came from a variety of sources including private foundations, Federal Government, State government, and private industry. Although the grant usually was small ($10,000 to $50,000), it was sufficient to fund the fifth Phase I activity—planning and consensus building. Typically, planning activity was characterized by the group's continued work to perform the following tasks:

- Formalize the intended outcomes;
- Discuss the means through which outcomes will be reached;
- Translate goals into specific service activities;
- Divide the labor required to implement the program;
- Assign accountability for activities;
- Negotiate and sign an agreement identifying the source and nature of resources, the usage of these resources, and the duration of their availability; and
- Establish the vehicles through which the partners will continue to communicate and to implement the program.

Planning and consensus-building activities had the effect of solidifying feelings of ownership, which stemmed from sizeable personal commitment and sacrifice of time

and energy. Individuals reported hundreds of hours of meetings to resolve issues and secure resources, as well as high-energy negotiating sessions to craft compromises that met the needs of the target population and the objectives of strategic partner organizations.

Phase II

After the compromises were reached, shared vision was crystallized, labor was divided, and partnerships were codified, the projects entered a second phase of activity. Phase II included implementing the program, promoting and marketing the partnership's activities, and continuing to seek and secure political support. The programs also refined their structure and implementation processes to better fit their markets and to build on their success. In some situations, programs grew during this second phase of activity. More often, however, the programs functioned with the original partners and began operating successfully within that parameter. The second phase of activity seemed to last 2 to 3 years in most programs, taking the program activity into Year 4 or 5.

Phase III

The programs usually entered a third phase of activity, which might be called "organizational maturity," during the fifth or sixth year of operation. Two characteristics of the third phase are stability and success. Programs achieved their goals, had low staff turnover and fixed resources, and continued to receive favorable media attention and community support. Moreover, the program's reputation grew and it became recognized, at least locally, as a program that delivered the services it promised.

Another characteristic of the third phase was an infusion of new challenges. After a period of stability at the beginning of Phase III, most programs began to seek out new partners and/or offer new services, to look for new resources, and to expand their constituency within the region. This process, which served as a kind of renewal for the programs and for the individuals involved, has continued for most of the programs in the study.

One potentially complicating factor regarding the Phase III expansion relates to an increase in the number of involved community groups and local governments across a larger geographic region. Expanded political influence was viewed cautiously by most partners because they saw it as complicating the long-term development of the partnership.

It is important to note that the programs experienced peaks and valleys of activity during the organizational maturity phase of development. Periods of temporary-level

operation and occasional stagnation would be followed by periods of rapid expansion. Often these cycles seemed to correspond with regional business cycles; however, there are no quantitative data to draw a firm conclusion.

The development of each partnership has shaped the content and the delivery of the program and, in most cases, the funding streams and processes as well. For example, the Milwaukee H.I.R.E. program was developed in response to worker dislocation. To this date, it still operates in a response mode. Consequently, it does not have a steady, predictable funding base (e.g., private funding), but rather operates from year to year, and grant to grant, in response to particular economic cycles and industry fluctuations. The other programs have moved to a proactive posture (H.I.R.E. is considering a similar move) in which they consider market projections for planning as a strategy to ensure continuity for their efforts.

IMPLICATIONS/LESSONS LEARNED

Nine lessons seem clear from analyzing the linkage or partnership development process within the model programs. Each lesson holds several key points for a location or institution interested in building a partnership to support a work transition program. Several of the lessons seem to be common sense; however, failure to attend to a lesson may lead to unwarranted delay or difficulty in operating the partnership.

All partners must share a clear vision of program outcomes and must work to achieve mutual goals.

There must be a common understanding among partners about the nature of the target population and about the expected outcomes of program activity. Based on this understanding, the expectations should become written goals of the partnership and must be vigorously pursued by the program. Such clarification is beneficial in any partnership arrangement.

The most effective partnership linkages are those which mutually reinforce program goals while also meeting the long-term and strategic needs of each participating organization.

The most effective partnership linkages are those which mutually reinforce program goals while also meeting the long-term and strategic needs of each participating organization. That is, the goals of the partnership must be merged with the mission of each partner organization so that the training program serves not only the target population but also meets other ongoing needs of partner organizations. For example, training programs that successfully serve disadvantaged youth not only meet the needs of the target population, but also help schools maintain average daily attendance, help employers

employees, and help community service organizations concentrate their resources on neediest clients. Similarly, when the local community college can provide the training for local employers to help them respond to competition, keep current with new technology, and advance employee knowledge, skill and ability, the college not only generates revenues to help it survive, but also helps fulfill its community-based economic development mission as well. When an industry can provide exposure for community college teachers and professors to help keep them current on the latest technology, it helps to ensure a quality education for the existing and future workforce. When a State can use some of its economic development funds to provide training to help attract and retain businesses, the State is ensuring its continued economic vitality. When a labor union can help employers better anticipate their workforce needs and better plan for and carry out retraining or upgrading programs for existing employees, these unions are helping the companies meet their human resource needs, and helping employees retain or regain employment. The clearer each partner is on its goals, the easier it is to find points of mutual benefit.

Occasionally, however, the merger of program goals and organizational needs/objectives requires internal policy changes within the participating organizations. The process of changing policy and merging goals helps to create the necessary win-win situation for the partners and enables them to discuss, within their own organizations, the means to achieve the agreed upon outcomes. Importantly, the means can vary from partner to partner within the same partnership and still achieve a common outcome. However, the means and resources that each partner will contribute during a given period of time toward program implementation must be codified in a document of understanding, dated and signed by all partners to clearly establish lines of responsibility, authority, and accountability.

> **There must be a recognition of the time requirements necessary to create and institutionalize an effective partnership and program.**

Creating linkages or partnerships consumes a great deal of time and energy. Further, it is expensive because it requires significant time expenditures by upper-level management in the planning and initial implementation phases. Study findings suggest that an effective partnership may take as long as 7 years to develop to maturity, and even then it is subject to life cycles that require renewal. Moreover, throughout the life of the partnership there will be continuous readjustments to the organization in order to keep it operating efficiently.

In the programs studied, functional partnership linkages were developed over a relatively long period of time, although the linkage mechanisms may have been settled fairly quickly. Partnerships took years, not weeks or months. One

implication of the time needed to develop and solidify working relationships is that it is difficult, and perhaps ineffective, to review these programs and their linkages before they have been in operation at least 2 to 3 years. This may pose problems for policymakers and program planners who often want program results and positive outcomes on a quick turnaround basis.

The data do suggest, however, that some factors can shorten the period of time required in Phase I for creating a partnership. In Louisville, for example, the model was crystallized and implemented in less than the 2 years that it usually takes to complete Phase I. The progress was attributed to these three factors:

- A history of cooperation among the partners on issues similar to the one on which the partnership is focused;
- The availability of information about models, potential problems, and solutions that made it possible for the partners to work from a common knowledge base fairly quickly; and
- The rapid achievement of *solid*, continuing support from industry and the political community.

Educational service providers must have a private service industry perspective.

The data clearly indicate that, in model programs, educational partners have what may be termed a "private sector perspective." That is, they express their role as a *service organization* and view their mission as carrying out the training mandates *established by the partnership*. They readily accept their position as a partner and as a service provider and do not require unilateral control, unlike some traditional industry/education ventures that fail as a result. The business perspective also includes a readiness to deal with accountability issues, an understanding of the negotiation process, and an orientation toward seeking win-win solutions to problems.

Another aspect of the business perspective exhibited by educational partners is timeliness. In the model programs, the educational institutions providing training are able to offer quick turnaround in terms of getting training online. Often this means rapid decisionmaking and working within a more flexible calendar than may typically be the case in a school system.

The partnership must foster a climate of negotiation and cooperation.

Frequently a partnership will establish a program as an independent entity which then functions as a third party broker to help resolve turf battles. By having a broker, no partner is viewed as protecting or preventing a single vested interest, and the climate for seeking win-win solutions is fostered. In general, the strategy adopted by the broker is to require the potential partners to focus on two issues: client needs and the mission statement that expresses the expected outcomes in relation to client needs. By focusing on needs and outcomes and by conducting negotiations such that compromises and solutions always support the mission statement, the broker is able to assist partners in broadening their reasons for participating in the partnership beyond their own self-interest.

The model programs often adopt internal rules about dealing with conflict. For example, in Portland, the rules provide that partners keep problems confidential within the partnership. That is, they do not discuss problems outside the room where they meet. They do not involve the media until the problem is resolved, nor do they talk about the problem within their own organizations. Given these ground rules, turf battles are more likely to be brought up and dealt with than would be the case without the assurance of confidentiality.

Partners must exhibit a top-down commitment that grows both vertically and horizontally within their organizations.

Top-down commitment that grows horizontally and vertically within all partner organizations is absolutely essential to building a strong partnership. This may be the most important lesson learned by examining model programs. Four issues are involved in this lesson, each one critical to developing effective partnerships.

The most important lesson learned by examining model programs is that there must be a top-down commitment within each organization. The authority and responsibility to implement the partnership becomes decentralized throughout the organizations as the program moves to implementation.

First, there must be top-down commitment within each organization. Individuals in the organizations must be given direction, a sense of mission, and the responsibility and authority for moving forward with the program. In the model programs, top-level commitment typically comes from the CEO or a senior vice-president within the employer organizations, from the heads of community organizations, from chief elected officials in local government, and from the superintendent or president of a school system or community college. The commitment

is unwavering in terms of pursuing the partnership's mission and confers visibility and priority upon the program of the partnership.

Second, given top-down commitment, the authority and responsibility to implement the partnership becomes decentralized throughout the organizations as the program moves to implementation. Initially, decisionmaking responsibility and authority rested at the upper levels of the organization. Over Phases I and II of development, however, responsibility for the actual work of the partnership and for maintaining contact with each member organization was delegated to programmatic levels in the chain of command of the organization. Program work, even work involving partners, generally is delegated to the actual service providers. For example, in Louisville, the Deputy Mayor is a member of the planning team; in Portland, the City School Liaison, who reports directly to the mayor, serves on the action planning committee; and in the Genesis Health Ventures' Project, several members of the employer and educational management team play key roles in the partnership. In the Los Angeles Adult Program and Project COFFEE, teachers and administrators are responsible for contacting employers. Similarly, in Louisville, the career developers are responsible for the day-to-day operation of the program and for maintaining many of the boundary contacts with members of the partnership. Further, with this decentralized decisionmaking and authority, all members in boundary positions are invited, encouraged, and indeed expected to bring forward new ideas for expanding the partnership and solidifying the operation.

Two important outcomes grow from the multilevel contacts. First, ownership for program outcomes and processes is experienced at all staff levels with a resulting increase in commitment. Second, the partnership becomes institutionalized so that when a major upper-level "player" in the partnership leaves—as recently happened in COFFEE, St. Louis, and Louisville—the partnership continues to work and grow. It overcomes personality dependency.

A third issue regarding the commitment required to maintain a successful partnership is that of personal investment. This is particularly striking in the school-to-work model programs. Unlike many of the school-to-work partnerships that have been written about in recent literature in which business provides money to the school, partners in the model programs provided an even more precious resource—time. The time that individuals gave to development and implementation of partnership programs most often was uncompensated and was given at significant personal sacrifice. For example, in a number of programs, teachers and administrators spent many weeknights developing networks, promoting the program, working on placements and providing personalized services to trainees. There seems to be a direct relationship between the amount of personal investment that each individual within the partnership makes and the continuing success and growth of that partnership.

The fourth issue regarding top-down commitment has to do with developing and using CEO networks. The partnerships conscientiously set about creating their own influence structure and building their own constituency. They look to bring new members into the partnership when appropriate and to secure all necessary resources to meet their common goals. Moreover, the networks usually extend well beyond a single industry into community and trade organizations. Networks help to maintain a camaraderie among top industry and community leaders, ease the transitions of new leadership, transfer knowledge and information, and provide an institutional framework for participation and interaction.

The networks take several forms. Sometimes they are part of existing community networks as in Los Angeles or Project COFFEE. Other times, they are consciously sponsored by the training program as is true with the Louisville, Portland, Indian-Meridian, and Prairie State 2000 efforts.

The partnership must foster open, honest, and frequent communication.

Model programs are characterized by frequent communication at all levels of activity within the partnership. Communication often occurs on a daily basis and deals with all aspects of program activity and policy. New ideas are encouraged at all levels and, in the event that an idea is rejected, partnership members are encouraged/ expected to rework it, to indicate the difficulties with it, and to offer suggestions about how it could be made useful.

Two other norms regarding communication provide particularly important lessons. First, within the model programs, credit for success is shared and publicly acknowledged. Credit is freely and appropriately given when it is due, with the result that individual investment in the program is strengthened. Second, and equally critical, an understanding exists among the partners that they will speak positively of the program. Positive interaction regarding the program is consciously built into the culture of the organizations. This does not mean that the partners do not argue vociferously for their points of view; in fact they often do—but behind closed doors. Any discussion in public, even within their own organizations, is positive.

All employers, regardless of size or sector, should be included in the program.

The issue of employer size seems to be important in two ways. Larger employers have more OJT placements available to students, and, with a larger staff, they are able to afford the increased supervisory responsibilities necessary to carry out the program. On the other hand, many small businesses depend on the partnership programs as a source of part-time workers. So, although the students do not receive

the structural training of an OJT position, they benefit by gaining work experience as well as earning money.

Regardless of size, all employers have important contributions to make and benefits to realize through participation in the program. Whereas larger employers have more resources to contribute during the initial development of a partnership, as the program becomes established, the employer base should quickly be widened to include all employers in the service area, public, private, and nonprofit, large and small. In fact, smaller employers have more to gain from joining the partnership and can take advantage of these linkages to expand their scope, their reach, their stability, their visibility, and so forth. For example, the employer-operated training programs funded by the Prairie State 2000 Authority appear to be small programs, operated by a small agency, and serving small employers. Because the programs lack sufficient staff to keep in touch with many small employers directly, they have included in their network such organizations as MAI and the Economic Development Council of the Peoria Area that, in turn, have their own linkages with companies in Illinois that may be candidates for participation. Similarly, in Oklahoma, seven employers participate in the training programs. They have established three types of industry-education linkages: linkages between the area vocational-technical center (AVTC) and *individual* companies; linkages between the AVTC and a subset of local companies *as a group*; and linkages *among the participating companies*.

The lesson learned is that small organizations can increase their exposure in the larger community and their pool of potential employees through linkages with broad-based associations, councils, etc., that have their own networks. Thus, small employers, who typically cannot afford much marketing, outreach, or public relations, can benefit from the existing networks of the larger organizations in the partnership.

Involving a single educational institution or school system in the partnership eases administration and facilitates communication.

The model programs in the study involve a single school partner. This is viewed as very positive within the partnerships because it means that one educational entity is the point of contact for the other partners. It also means that there is one set of books and one set of administrative procedures, which makes administration of the program far more hassle-free than programs that deal with multiple school systems.

The greatest benefit of having a single school system involved in the program, however, is that it facilitates communication between the program and the business community. Too frequently, employers who would like to become involved in school system-based programs are put off by the conflicting agendas of school districts in the same locale. By dealing with only one district, the partnership is able to assure

employers that they will not be caught in school system turf battles and that they will not encounter a lot of administrative red tape.

Some organizations can play multiple, simultaneous roles.

The career advancement program linkages provide opportunities for some organizations to play multiple roles simultaneously. In the Prairie State 2000 programs, MAI serves as both a point of interface between the Prairie State 2000 Authority and employers—a broker—as well as a funding scout and a training provider. This multiple role enables MAI to function in a manner similar to an outside organization development consultant. ("Here are some services that will address your problems. I can help arrange them for you and arrange for funding to defray part of the costs of those services. I can also directly provide the training.") Likewise, in Stillwater, the Indian-Meridian Area Vocational-Technical Center also plays multiple roles: helping to determine the types of training needed, helping to expand the types of training provided, and actually providing the training.

This has implications for program design. When the training broker is also the training provider, there are various advantages and disadvantages. The advantages are that the broker is familiar with the employers' needs, and therefore the training provided can be mutually reinforcing. The broker/trainer has the opportunity to augment its revenue, its training staff infrastructure, and its reputation with its members or participants. However, the disadvantages are that this situation often creates a monopoly, offers the employer little choice with regard to other training providers, and can be unsatisfactory if the quality of the training provided by the broker/trainer is inferior or unsatisfactory. The elements of competition and market choice to drive quality up and costs down are removed.

Summary of Lessons Learned Regarding Linkages

- All partners must share a clear vision of program outcomes and must work to achieve mutual goals.
- There must be a recognition of the time requirements necessary to create and institutionalize an effective partnership and program.
- Educational service providers must have a private service industry perspective.
- The partnership must foster a climate of negotiation and cooperation.
- Partners must exhibit a top-down commitment that grows both vertically and horizontally within their organizations.
- The partnership must foster open, honest, and frequent communication.
- All employers, regardless of size or sector, should be included in the program.
- Involving a single educational institution or school system in the partnership eases administration and facilitates communication.
- Some organizations can play multiple, simultaneous roles.

3. PROGRAM OPERATIONS

This chapter examines the operations of the school-to-work and career advancement programs that were developed as a result of the linkages just described. The following eight topics are addressed: promotion strategies, organization and staffing, types of training offered, types of support services offered, assessment of trainees' performance, assessment of service providers' performance, program funding, and technical assistance issues. The concluding section discusses lessons learned about program operations.

PROMOTION STRATEGIES

Promotion strategies encompass both outreach to potential participants and publicity to the general public that advertises the program by explaining how it benefits both participants and the community. The two aspects become intertwined because outreach and recruitment activities often go hand-in-hand with public promotion efforts. The ensuing publicity generates support for and participation in the program.

The focus of our analysis is on strategies to recruit and retain program participants, including trainees/students, public and private sector employers, other entities related to business and industry, and educational institutions. Retention is very important to promotion, because it is one of the factors that potential participants use to judge the program. Within this framework, public promotion activities also are captured. Recruitment of educational institutions typically has not been an issue in either the career advancement or school-to-work programs because, with one exception in each model, they are either operated by the public school system or with a local vocational-technical institute or community college.

Recruitment of Students/Trainees in School-to-Work Programs

The most commonly used, and reportedly the most effective, method of recruiting participants for all the programs is by word-of-mouth. Many applicants hear about the program from participants, friends, or relatives.

Those school-to-work programs that are operated by public school systems rely, at least in part, on referrals from guidance counselors, teachers and others in the system, as well as from the courts, law enforcement and social service agencies, churches, and other organizations that are in contact with the members of the target population and/or their families. They also make information available directly to the target population, such as in the Portland Investment in which program information is given to free school lunch recipients and also mailed to Aid to Families with Dependent Children (AFDC) recipients by the welfare department.

The school system programs also make use of presentations to students during the school year and open houses held for students and parents. For instance, the Philadelphia High School Academies staff make presentations at the middle schools (since the program serves grades 9-12) and contact interested students and their parents periodically to keep them informed and maintain their interest until the students are eligible to enroll. At the Southeast Institute of Culinary Arts, two counselors from each high school in a three-county area are invited to visit the St. Augustine Technical Center and have lunch prepared by the culinary students. The counselors then go back to their schools and choose students to form a group of 125 who visit the Center, receive an orientation, and have lunch.

The school-to-work programs that target out-of-school youth and adults use a combination of approaches to attract students: newspaper articles and advertisements, public service announcements (PSAs) in the media, appearances on radio and television talk shows, posters, brochures, flyers, newsletters, presentations to community groups, and exhibits at job fairs and career days.

The out-of-school programs also employ a variety of recruitment mechanisms based on the particular segment of the population they wish to attract. In Los Angeles, for example, the program serves many immigrants, emphasizing the use of multilingual announcements, advertisements, and presentations appropriate to the various ethnic and minority groups in the city. The ANEW program has a requirement that 55 percent of its enrollment be minorities. Therefore, outreach efforts target media and special groups, centers and events popular in various communities, as well as agencies serving African Americans, Asians, Hispanics, and Native Americans. At the Central Area Motivation Program, which serves a broad base of multicultural clients, Apprenticeship and Nontraditional Employment for Women (ANEW) staff hold a 7-hour orientation session to acquaint women at the Center with ANEW.

Several programs maintain a waiting list for applicants who cannot enroll because the number of training slots is limited, the content or structure of the training does not lend itself to participants entering after the session or cycle has started, and/or the applicant has not met requirements for entry into the program. Applicants who are ineligible, unsuitable, or decide they are not interested are usually directed to alternative programs or other options that may meet their needs.

Recruitment of Employers in School-to-Work Programs

An examination of recruitment strategies for employers is not complete without recognizing that several key aspects undergird effective marketing efforts. Foremost among them is the credibility imparted to the program by the presence of respected private industry leaders on the program's advisory group or board of directors.

Equally important is the ability of the program to produce graduates with the types of skills needed by employers. In every program studied, the training curriculum has been developed and updated in consultation with employers in the particular industry or business. Even in Louisville, where the program does not train in specific job skills, curriculum developers confer with a consortium of employers regarding employability and work maturity skills development. Most of the programs have an on-the-job or laboratory training component of some sort, and involve employer approved certification of skills, generally stated as competencies. In programs with OJT and/or work experience, students are matched with employers on the basis of skills/interests/needs and go through a probationary period. This provides some selectivity for the employer. These factors, combined with information on placement and retention, also are persuasive in marketing the programs to employers.

Foremost among recruitment strategies for employers is having respected private industry leaders on the program's advisory group or board of directors. This imparts credibility to the program.

Most of the strategies used in employer recruitment capitalize on the prior and ongoing success of the program, information that is perceived as important by all parties when recruiting employers. For instance, in Portland, the Chamber of Commerce publishes a widely distributed monthly newsletter in which the Business/Youth Exchange Coordinator writes a column describing the activities, successes, and new initiatives of the Portland Investment. The Philadelphia High School Academics (PHSA) administrator mails a promotional package to potential employers and follows up with a telephone call and possibly a meeting. The PHSA Board of Directors, composed of about 30 business, education, and union leaders, assists in identifying likely firms and the appropriate contact person(s). The most commonly used employer recruitment methods are as follows:

- Personal contact, by program directors and staff, with owners of small businesses, supervisors and personnel directors in large companies, officials in business associations, and training coordinators at various unions;
- Word-of-mouth from employers who have hired one or more program trainees;
- Periodic newsletters, other publications, and public appearances (including radio and television) by staff to promote the program to businesses, professional associations, and others;
- Provision of the opportunity for employers to tour the training facilities, observe training, and talk with staff and students;

- Promotional efforts made by members of the Board, advisory groups, or other affiliated groups to their colleagues in the business community;

- Development of customized training programs to fulfill needs of the employer(s); and

- Participation by program staff and board/committee members in various philanthropic, fraternal, social, and community organizations that offer opportunities for formal and informal networking.

Personal contact is considered by most programs to be the most effective recruiting tool. In New York City, the Joint Urban Manpower Program (JUMP) board members call their colleagues to generate support for training slots. The backing of four major professional societies and prestige of the board members lend considerable credibility to the recruitment efforts. Perhaps the most dramatic example of the use of personal contact in a recruitment effort took place when the Louisville Partnership began in 1988. Its chair formed a task force of 65 executives loaned by their companies to recruit employers to provide jobs for the at-risk students targeted by the program. Organized in teams, the executives contacted about 450 employers via letters and followup telephone calls and personal visits. After only 6 weeks, 127 employers had committed about 1,200 jobs. In the Los Angeles program, teachers are required to make contacts with industry representatives. Their job descriptions include making regular visits to employers, and assisting employers who use the school like a hiring hall or referral service (e.g., calling the instructor to find out which students may be finishing, when, and with what skill level). The location of 700 auxiliary branches in communities and businesses within the Los Angeles area also provides ongoing opportunities for sharing of resources and outreach.

Reimbursement for all or a portion of the employers' training costs are reported as a significant recruitment incentive in two programs. The JUMP and the Huntsville programs share this feature.

Recruitment of Other Key Participants in School-to-Work Programs

Five of the ten school-to-work programs have representatives from organized labor on their boards or planning committees: ANEW, the Portland Investment, the Louisville Partnership, PHSA, and the Cooperative Federation for Educational Experiences (Project COFFEE). These members not only show support for the program, but also help to ensure access to job slots protected by collective bargaining agreements; to utilize employees covered by collective bargaining agreements as trainers, teachers, or supervisors within the program; and to develop and maintain training programs that enhance graduates' entry into occupations represented by organized labor.

The advisory groups for the Portland Investment, Project COFFEE, and the Louisville Partnership also include elected public officials and/or leaders of community-based organizations. In Los Angeles, public officials are involved in a brokering capacity as new program elements are introduced. In all cases, the inclusion of these members is based on their leadership, political clout, ability to command financial and other resources, and/or reputation among target groups in the community.

Recruitment of these highly influential members generally occurs during the developmental phase of the program, not after the program has been implemented. Program maturity seems to affect only the need to replace original members who may eventually resign.

Recruitment of Students/Trainees in Career Advancement Programs

Trainee recruitment in the career advancement programs is quite different from the school-to-work programs since these programs generally serve existing employees within a company, and, therefore, have a "captive" audience. Employers use a variety of methods to inform employees of opportunities. In all cases, training is on a voluntary basis, so internal promotion is low-key, but fairly constant. At Crouse-Hinds, for instance, recruitment is done through use of bulletin boards, booklets, individual counseling, and certain incentives to pursue degree programs.

Genesis Health Ventures uses its training program as a recruitment vehicle. It employs a variety of strategies including newsletters within the company which focus on training, pictures of graduation exercises prominently displayed within the facilities, special seminars on career issues for employees, an alumni day to bring together graduates to share ideas and socialize, a brochure within the company to recruit participants, and word-of-mouth advertising from participant to participant.

The Milwaukee Help In Re-Employment (H.I.R.E.) Program recruits dislocated (or soon to be dislocated) employees through notices, presentations, and local unions.

Public Promotion in Career Advancement Programs

Informing both professional organizations and the general public about their program activities helps career advancement programs stay current regarding training- and industry-related technology while promoting their organizations. Genesis Health Ventures uses promotional tools such as company literature to maintain good public relations and also to recruit qualified health care professionals to the organization as potential employees. Additionally, the company recruits more customers for its facilities, because it becomes known for quality enhancements, continuity in patient care, and expanded services. The use of the training program as a promotional technique is of strategic importance because it demonstrates the level of professional

nursing care that is available to Genesis' customers. In so doing, the image of traditional nursing home care delivery is transformed.

The Crouse-Hinds Program is promoted externally through its training manager's memberships on several local and State advisory boards, participation in training conferences sponsored by the American Society of Training and Development and through presentations to university classes.

Informing both professional organizations and the general public about their program activities helps career advancement programs to stay technologically current while promoting their organizations.

Prairie State 2000 uses a system of field representatives to help promote its programs. In addition, third parties such as the Management Association of Illinois and the Economic Development Council of the Peoria Area help tap into the existing networks of organizations with constituencies that include potential candidates for funding through the Prairie State 2000 Authority.

H.I.R.E. staff promote their training to area employers to encourage them to provide on-the-job training (OJT) for program participants. This promotion is done primarily by phone and personal visits.

The Stillwater, Oklahoma Indian-Meridian Area Vocational-Technical Center (AVTC) promotes its Management Development program through its existing linkages with business and industry, which includes its five-member board and local employers. In addition, the AVTC maintains various ad hoc relationships with local business and industry. Its chief executive officer (CEO) network also helps to serve as a promotional vehicle.

Retention of Students/Trainees in School-to-Work Programs

Retention of students or trainees enrolled in the various school-to-work programs is quite high. (In this report, "retention" uses the meaning common in the employment and training field, i.e., to remain in the program or the job—rather than the meaning common in the education system, i.e., not passing a pupil into the next grade.) The factors that contribute to low dropout rates include the following:

- Screening applicants for the motivation and/or skill levels needed for the program;
- Signing written agreements that specify the obligations of the participants (student, school, and employer) in the program;

- Providing or helping applicants to obtain the types of support and remediation services needed to qualify for and/or remain in the program;
- Tailoring the content and schedule of the training to the individual's level when appropriate;
- Providing a supportive learning environment;
- Taking a personal interest in the trainee; and
- Coordinating work experience in the summer or after school as part of career exploration and decisionmaking.

All of the school-to-work programs have an OJT component, offer placement services, or arrange employment in a full- or part-time job. In the St. Louis, Huntsville, ANEW, and New York City programs, the students are actually earning while learning. In some programs, only certain students may receive wages [e.g., if eligible under the Job Training Partnership Act (JTPA)]. Earning income and the prospect of a job with meaningful career opportunities are powerful inducements to trainees to stay in the program. In addition, program staff typically follow up with the employer or supervisor as well as the student to monitor progress, identify and help to resolve problems, and obtain feedback that can be used to improve student performance. In helping to solve problems in the workplace, staff are able to tailor program activities to more appropriately meet the needs of the employers and the trainees. This type of continuing supervision and support, as well as the potential for full-time employment when the program ends, sustains higher retention rates.

Retention of Employers in School-to-Work Programs

Employers stay with the various school-to-work programs primarily because their immediate staffing needs are met and they may have the opportunity to acquire, over time, experienced personnel to support continued productivity. The following are factors that enhance or ensure retention of employers:

- Screening of applicants/students by the training institution to ensure that minimum skill requirements and motivation are present for entry into the program and placement in a training slot or actual job;
- Designing and providing training that is relevant to the employers' needs;
- Giving employers the final say about accepting and/or hiring individual trainees;

- Reimbursing employers for all or part of the training they provide;
- Developing formal agreements or contracts that spell out the terms of the partnership;
- Involving industry representatives as members of the program's governing body or advisory group and holding regular meetings to assess program status;
- Having business and trade representatives develop and/or guide development of the curriculum and periodically review the contents to recommend improvements on a regular basis, typically every 1 to 3 years;
- Maintaining frequent contact among the partners at both the decision-making or policy level *and* the work experience or training level;
- Having participating employers and industry groups market the program to other employers;
- Demonstrating that the objectives of the program are being met and getting that news out to the business community;
- Maintaining CEO networks of participating employers where the CEOs gather periodically, often under the auspices of the school, to discuss their training needs and the program.

Some of these are the same factors observed in maintaining linkages among the partners and also serve as inducements or rewards for participation. One would expect similarity given the close relationship between linkages and retention.

Many of the programs require written agreements with the employers who train and/or hire program participants. These agreements generally stipulate the expectations of each party and often provide a detailed outline of the training that the employer will provide. Agreements ensure that all participants know what is expected during the course of the year and what outcomes are possible. The Huntsville School to Apprenticeship Program uses a signed agreement between the employer and both the Alabama Department of Education—for a 12-month period—and the student and his/her parent or guardian. The employer has the final decision about whether to accept the student into full-time apprenticeship after completion of the program.

The Huntsville, St. Louis, and Los Angeles programs, as well as JUMP and ANEW, have training conducted in whole or in part at the employers' worksite. Program staff either provide the training directly or make visits to the worksite to monitor

progress, coordinate activities, and identify problems. This ongoing interaction among program staff, site supervisors, and trainees at the operational levels generates a high degree of professional and personal investment in the program. It also serves to reduce employer apprehension regarding having students in the workplace.

The Southeast Institute of Culinary Arts (SICA) serves as a continual resource to employers in that it offers use of its facilities when a restaurant or caterer has equipment problems, and use of its students by caterers to prepare and serve at various functions. Local firms employ about 80 percent of the students in either full-time or part-time positions during training. These "placement" services are offered free of charge and not only respond to the needs of local employers but also offer valuable work experience and income for the students. As a further incentive to employers, the St. Augustine Technical Center guarantees employers that it will retrain, for free, any graduate who does not perform up to par.

The economic necessity for competent employees at entry-level positions and beyond, the existence of a viable program for providing requisite training, and, in many cases, a sense of responsibility for the well-being of one's community and country all contribute to the continuing involvement of the business, industry, labor, education, and other groups in the programs visited.

Organization and Staffing

The organization and staffing patterns of the school-to-work programs differ markedly from those of the career advancement programs. The nature of the two types of programs, their target groups, and setting require different structures.

School-to-Work Programs

The organizational and staffing structure of all 10 school-to-work programs is similar in at least 2 respects. First, each program has created a distinct entity to coordinate and implement activities. Among the postsecondary programs this tends to be a separate, legally constituted entity (e.g., ANEW and JUMP). One secondary program is also in this category. PHSA was formed in 1988 after nearly 20 years of operating the academies as independent entities. Among most of the secondary programs, however, selected school district staff form this action group.

Second, every program has a full-time director, administrator, or coordinator (except the very small Huntsville School-to-Apprenticeship program). This individual typically spends a major portion of his or her time promoting the program in order to recruit new employers and maintain the base of support already established.

Full-time teaching or training staff represent the largest group in the staffing patterns across the school-to-work programs (see Exhibit 1 for details on staffing structure). In most cases, instructors assume some responsibility for developing jobs, coordinating with employers who are providing students' work experience or OJT, and following up on trainees after their placement to get feedback on their performance, as well as training. ANEW and JUMP both have counselors who provide career and personal counseling. In most programs, counseling is done by teaching staff, and in some cases, the program director. Four of the programs have one or more administrative/clerical support staff and two have instructional aides.

Career Advancement Programs

Each of the career advancement programs is organized with a program coordinator or a training manager who oversees the operation and manages the training instructors and other administrative personnel as needed. Program design, numbers of participants, and geography seem to dictate the organization structure and staffing patterns of the programs. As illustrated in Exhibit 1A, no uniform pattern is evident across programs. In fact, the career advancement programs are characterized by their individuality.

The Prairie State 2000 programs provide an interesting variation, with a central office and two field offices. The central office in Chicago is staffed by one CEO, one fiscal officer, one data coordinator, one contracts coordinator, and one secretary. The Northern Illinois field office has one three-quarter time field representative; the Central Illinois field office has one half-time field representative; and the Southern Illinois field office has one quarter-time field representative.

The Milwaukee H.I.R.E. Program has a unique matrix management approach, in which each participating organization provides some of the staffing. The Milwaukee Area Technical College provides three staff persons to perform orientation, skills assessment, job search skills training, and career counseling. The Job Service provides two staff persons for career counseling, job search assistance, and placement assistance. The AFL-CIO provides two staff persons for overall management and coordination, and the United Way provides one staff person for counseling and referrals.

Staff/Trainee Ratio

The ratio of teaching staff to trainees varies considerably and is assessed differently in different programs. For instance, there is no consistency in how programs "count" volunteers or part-time staff. However, in most programs the ratio seems to be 1 staff person for every 10 to 25 students.

Staff Qualifications

Regarding qualifications of the instructors, teachers in the public school systems must meet their respective States' requirements for certification. In two of the programs serving adults (Los Angeles and SICA), the instructors can be hired and begin teaching based on their industry experience and/or level of achievement recognized by their professional association, but must then begin working toward State certification. The JUMP instructor has both an advanced degree in engineering and work experience in construction engineering. In the ANEW program, the instructors are certified vocational education teachers. Across all programs and types of staff, regardless of professional qualifications, a real commitment to the program goals and to the students on a personal basis was apparent and is regarded as essential.

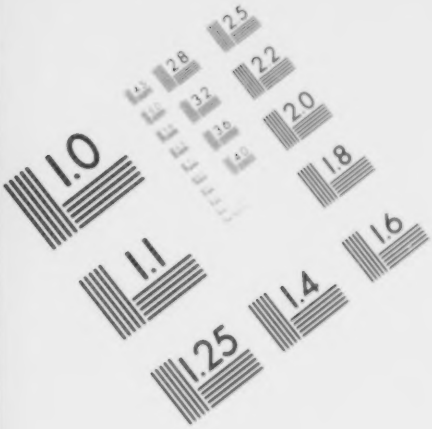
TRAINING PROGRAMS OFFERED

The training offered by the model programs varies greatly and is based on local labor market needs. However, one common element across most programs was the use of a contract or agreement between the individual trainee and the program. At a minimum, the document identifies the responsibilities of students and what the educational institution and/or employer will provide. Frequently, in the career advancement programs, the agreement includes information concerning the employee's continuing commitment to the employer. In some school-to-work programs, the contract requires parent signatures. In addition to a client agreement with each trainee, JUMP has signed agreements with employers covering their commitment to hire one or more trainees. Firms apply their personnel policies relating to "new hires" prior to their trainees' enrollment in JUMP.

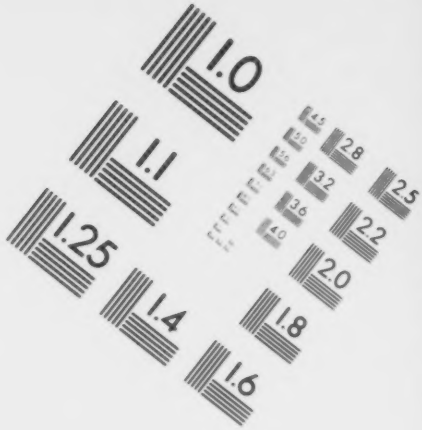
The training offered by the model programs varies greatly and is based on local labor market needs.

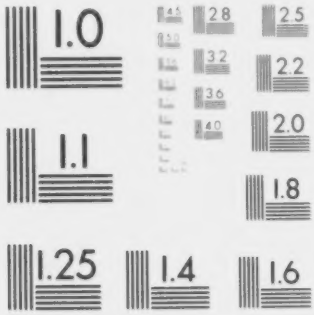
Target Audience

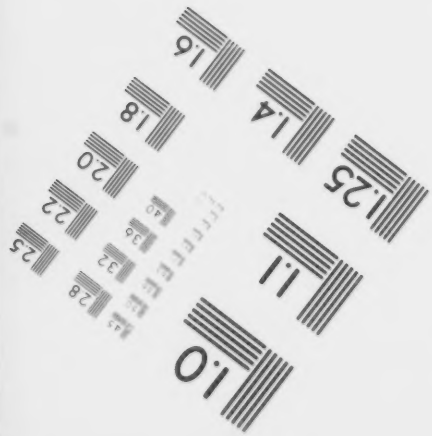
The primary target group for 6 of the 10 school-to-work programs studied is at-risk youth (and adults in some cases). For a student to be identified as at risk, a formal or informal assessment of his or her training needs and barriers was conducted. Several of the programs test the applicant's reading and math levels and three administer interest and/or aptitude inventories at the outset of the program. None of the programs reported that applicants are screened *out* based on the results of formal assessment tools. All of the programs include a personal interview with the director or other staff as part of the assessment process. It is generally during this interview that the student's need for the program is established; then, a training design, based on individual needs, is generated for the trainee. The definition of "at risk" is program specific and includes *one or more* of the following descriptors: dropout,

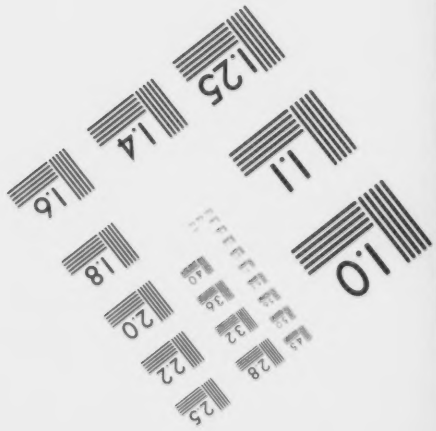


Association for Information and Image Management
1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202









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"discipline problem," student working two grades behind grade level, non-English speaker, or student with a diagnosed disability.

The career advancement programs are offered for employees of specific companies, except for the H.I.R.E. program, which trains workers who have been dislocated from a variety of industries.

Types of Training Offered in School-to-Work Programs

Private sector and school system officials in several school-to-work programs mentioned that, although preparing young people for the work world is an extremely important component of the school system's mission, it is not the *entire* mission. They are concerned that some partnership programs focus so intently on the *Workforce 2000* issues that they lose sight of their mission to prepare students to become productive members of society, not just productive workers. The school-to-work programs are designed to ease the transition process, whether it be immediately to the work world or to further education or training. However, the programs also are designed to keep students in high school until they graduate and to move at-risk students out of that category permanently, thereby fulfilling the broader mission of the schools.

The 10 school-to-work programs offer 8 types of training in a variety of combinations, as follows:

- *Academic*—regular high school English, math, and social study classes;
- *Basic Skills*—reading and math remediation as well as English as a second language;
- *GED Preparation*—topics related to the test;
- *Occupational Skills*—training for entry-level and higher positions in a specific industry or work role (e.g., food service, computer maintenance);
- *Preemployment Skills*—values clarification, decisionmaking, goal setting, labor market information, self-esteem development, and world-of-work expectations;
- *Job Seeking Skills*—application preparation, resume writing, interviewing;
- *Employability/Life-Coping Skills*—attendance, punctuality, conflict resolution, quality orientation, communications, interpersonal relationships, problemsolving, money management, drug and alcohol abuse prevention,

expectations on the job, teamwork and dealing with the attitudes of co-workers; and

- *Physical Conditioning*—strength and flexibility development and coordination.

Exhibit 5 displays the types of training offered at each school-to-work study site, as well as the primary delivery methods used.

The model programs all enjoy very strong linkages with industry and are very responsive to local market needs, both in choosing which occupational skills to offer and in defining a "work-ready" individual. The specific occupations for which training is offered by each program are listed on the page following Exhibit 5.

Several aspects of the training offered by the school-to-work programs are especially critical. The job-specific, entry-level skills are certainly important and many employers like the opportunity to ensure that skill training content matches industry and company needs. Employers contribute their expertise to ongoing program development by serving on program advisory committees that review curricula, and/or by offering OJT that emphasizes company-specific practices.

Of equal importance to the success of continuing partnerships, particularly from the employers' perspective, are employability and basic skills development. These skills are offered in every program, and include topics like math and English, oral communications skills, problemsolving, work world expectations, and understanding organizational climates. Employers report that student success in these content areas is related to high placement and retention rates. Trainees claim that mastery of the content helps to build their self-esteem. Similarly, job search skills contribute to making trainees placement-ready and to building self-confidence.

The school-to-work programs are designed to ease the transition process; however, the programs also are designed to fulfill the broader mission of the schools.

Two other aspects of the curriculum also are reportedly related to increases in participants' self-esteem and confidence: preemployment training and physical conditioning. In both instances, the training provides opportunities for trainees to be successful in education/training-associated activities. A number of trainees indicated to our project staff that the personal attention they received, and the success they achieved, were among the few instances of either that they had ever encountered in the school setting.

EXHIBIT 5

TYPES OF TRAINING OFFERED AND PRIMARY DELIVERY METHODS IN SCHOOL-TO-WORK PROGRAMS

Program	Types of Training Offered								Primary Delivery Methods			
	Academic	Basic Skills	GED	Occupational Skills	Pre-employment Skills	Job Seeking Skills	Employability/ Life-Coping	Physical Conditioning	Classroom	Simulation/ Lab	Work Experience	OJT
Huntsville	X	X		X	X	X	X		X			X
Los Angeles		X	X	X		X	X		X	X	X	X
Louisville		X			X	X	X		X		X	
Philadelphia	X	X		X		X	X		X	X		X
Portland	X	X	X	X	X	X	X		X	X		X
COFFEE	X	X		X	X	X	X	X	X	X		X
St. Louis	X	X		X		X	X		X	X	X	X
ANEW		X	X	X	X	X	X	X	X	X		X
JUMP	X	X	*	X		adding X	adding X		X			X
SICA		X	X	X		X	X		X	X		

*Firms with trainees who do not have a diploma are required by NYSDOT to send the trainees to JUMP (rather than submit their own training plan). JUMP sees that these trainees are enrolled in evening GED classes to obtain their GED before graduation from JUMP.

Occupational Training in School-to-Work Programs

Huntsville
- Machinist
- Electrician
- Electronics Technician
- Carpenter
- Drafter
- Plumber

Los Angeles
- Agricultural & Environmental Studies
- Business
- Electronics & Computer Science
- Health Occupations
- Home Economics
- Industrial Technology

Louisville
- Company-specific full- and part-time positions

Philadelphia
- Automotive
- Business
- Electronic
- Environmental Technology
- Health
- Horticulture

Portland
- Financial Services
- Health Care

Project COFFEE
- Computer Maintenance
- Word Processing
- Horticulture/Agriculture
- Building/Grounds Maintenance

St. Louis
- Banking
- Business
- City Government
- Financial Services
- Customer Service

ANEW
- Construction Trades
- Electrical/Mechanical Skills

JUMP
- Drafting
- Construction Inspection

SICA
- Culinary Arts

Additionally, the preemployment training often explicitly addresses workplace norms and attitudes including treatment of new hires, performance, expectations, language, and gender and social attitudes; preparing the individual for what to expect and how to respond improves the odds that the trainee will succeed in that situation.

In designing the training, program developers have worked within their respective States' requirements related to child labor laws. In-school workplace training for secondary students, as well as out-of-school work experience, typically does not begin until the minimum age level stipulated by the State.

Types of Training Offered in Career Advancement Programs

The training offered in career advancement programs differs from school-to-work transition training in several respects. There is less concentration on the entry-level, preemployment, and employability development skills, and a greater concentration on specific vocational skills development in career advancement programs. There also is less concentration on basic skills, unless an employee assessment has indicated that such a focus is warranted before vocational skills can be mastered.

The occupational training areas in the career advancement programs are presented on the following page.

Two features of the training in career advancement programs are readily apparent: the training is designed to meet the particular needs of the employer and to offer career development opportunities for the employees. All of the model programs in the study share an emphasis on customization to accomplish these objectives. Descriptions of the general approach used in two different model programs illustrate this point.

The Stillwater, Oklahoma program includes management and supervisory training which normally is provided onsite at local plants during normal work hours. In some instances, the training focuses on specific topics or skills such as listening skills. In other instances, the training is more generic and improves ongoing organizational development activities. For example, it is common for the local sponsor to provide regularly scheduled employee involvement seminars for team leaders at local plants.

The management and supervisory training is customized along three dimensions. First, training reflects the products, manufacturing processes, and organizational structures at each local plant. Second, the training complements management and supervisory training available from other sources, such as the training provided by parent corporations. This training frequently involves important degrees of corporate procedures and corporate culture. Another common other source of management and supervisory training is State and national associations which address important

Occupational Training in Career Advancement Programs

Crouse-Hinds
- Job/skill-specific training
- Employee development programs
- Associate degrees in:
  - Applied Science
  - Management
  - Manufacturing Engineering

Genesis Health Ventures
- Nursing Assistant Specialist
- Senior Nursing Assistant Specialist
- Senior Nursing Assistant Specialist Coordinator
- Associate Degree in Nursing

Prairie State 2000 Authority
- New technology training (e.g., CNC, office automation)
- Productivity/quality improvement systems training (e.g., SPC)
- "Quality" management and supervisory training
- Occupational "building block" skills training

Indian-Meridian AVTC
- Management and supervisory training
- Employer-specific occupational skills training
- Training in specialized new techniques
- Office automation training
- Training in safety and other specialized areas

Milwaukee H.I.R.E.
- Job search skills training
- Career planning and occupational assessment
- Job-specific skill training
- OJT
- Life coping assistance
- Adult basic education
- Skills upgrading
- English as a second language
- GED preparation

specific features relevant to their industry/occupational targets. Therefore, the management and supervisory training provided by the local sponsor is coordinated with the training provided by other sources, and complements the other training by filling gaps and building upon and extending the applicability of the training provided by the other sources. Third, the management and supervisory training is customized by coordinating it with the other types of training provided by the local sponsor, particularly occupational skills training, training in specialized techniques such as statistical process control (SPC) and computerized numerical control (CNC), and office automation training.

In the Prairie State 2000 program, a variety of educational, business/trade and community-based economic development organizations are utilized to market, arrange or provide training based on the local employers' needs. Among these organizations are the Management Association of Illinois (MAI) and the Economic Development Council of the Peoria Area.

MAI's approach to training arises directly from the response of American business to the threat from international manufacturing competition. Therefore, it is related to the introduction of new technology, the improvement of productivity/quality, and the enhancement of the overall competitiveness of U.S. industry. The approach envisioned to achieve these outcomes is a reorganization of production processes arising from a top-to-bottom "culture change" in which employees at all levels gain new perspectives of themselves, their competitors, and their coworkers. Once they have gained top level support for this mission of change, they provide comprehensive management and supervisory training. The management and supervisory training leads naturally into establishment of employee involvement mechanisms and implementation of team-building activities. With those activities underway, MAI turns its attention to the four other forms of training provided. These include traditional occupational skills training, training in new manufacturing techniques, office automation training, and basic skills training.

The Economic Development Council of the Peoria Area serves as a broker between the Prairie State 2000 Authority and the companies which are potential candidates for the program's funding. They operate on an ad hoc basis to arrange different types of training for each participating company, based on the firm's unique needs, whether that requires occupational skills training or training in employee involvement and reorganization of the production processes.

Exhibit 5A summarizes the types of training and delivery methods used at the career advancement programs.

Training Methods

All of the model programs use a variety of teaching and training methods in different combinations, depending on the subject area. All the programs stress the need for using experiential, hands-on, task/job-related techniques in dealing with trainees, whether they are adult learners or youth. Programs also rely heavily on interaction and feedback between instructors and trainees to ensure that the trainees achieve competency in the given topic area. All of the programs include classroom training to some degree, although the instructors use less

All the programs stress the need for using experiential, hands-on, task/job-related techniques in dealing with trainees, whether they are adult learners or youth.

EXHIBIT 5A

TYPES OF TRAINING OFFERED AND PRIMARY DELIVERY METHODS IN CAREER ADVANCEMENT PROGRAMS

Program	Types of Training Offered								Primary Delivery Methods			
	Academic	Basic Skills	GED	Occupational Skills	Pre-employment Skills	Job Seeking Skills	Employability/ Life-Coping Skills	Physical Conditioning	Classroom	Simulation/ Lab	Work Experience	OJT
Crouse-Hinds/ Cooper Industries				X (to meet management needs, state requirements, apprenticeship requirements, technological change, or development needs)			X (general development like team building, listening skills, supervisory training)	X				
Genesis Health Ventures	X	X		X	X (career seminars)		X (mentoring)		X (75%) (work-based learning, team learning, individual coaching/ tutoring)	X (25%)	X	

EXHIBIT 5A

TYPES OF TRAINING OFFERED AND PRIMARY DELIVERY METHODS IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Types of Training Offered								Primary Delivery Methods			
	Academic	Basic Skills	GED	Occupational Skills	Pre-employment Skills	Job Seeking Skills	Employability/ Life-Coping Skills	Physical Conditioning	Classroom	Simulation/ Lab	Work Experience	OJT
Illinois Prairie State 2000 Employer-based Program				X (building-block skills)					X	X		
Indian-Meridian AVTC		X (just initiated; labor force is generally well educated)		X					X	X		X
Milwaukee H.I.R.E. Program		X	X	X		X	X		X	X		X

lecture and considerably more small group work, individual activities, interaction, modeling, and practice of specific tasks than is typically observed in classroom teaching (see Exhibits 5 and 5A).

School-to-Work Programs

In the school-to-work programs, a relatively high percentage of time (e.g., up to 50 percent in COFFEE, St. Louis, Los Angeles, ANEW, and SICA) is spent in laboratory or mock settings that simulate work environments. For example, the horticulture students at Project COFFEE operate a greenhouse and landscape "business." They grow the plants and flowers, market their products and services, design plantings, and tend landscaped areas throughout the community. The simulation allows them to practice all the skills identified as necessary to work successfully in a horticultural business without incurring the stress of a worksite situation. The horticulture students at PHSA have designed, developed, and now maintain a number of very professional looking gardens in the school courtyards, including a Japanese ornamental garden, an English hedge garden, and a tropical garden complete with a pond and waterfall. Similar types of operations are employed in other trade areas in COFFEE, PHSA, and Los Angeles.

Many of the programs also use actual work on the job as part of the training. In some cases training is formal OJT in which the employer is required to prepare training objectives and agrees to train and to evaluate the student against those objectives. In other cases, less formal arrangements are made with employers who hire students in part-time positions while they are still in school, and full-time in the summer. The program may then use the students' work experience as a training tool to develop employability skills.

The training at SICA includes the daily operation of the school's cafeteria and faculty dining room. This is not *actually* OJT, because the students do not get paid for their training. However, the training does take place under the same production pressure that exists in an employment situation. Thus, there is only slightly more margin for error than would exist in a formal OJT situation. The Los Angeles Skill Center printing and data entry/word processing programs operate very much like the SICA program. The work is real even though it is for a school system or community service agency; the margin for error is small.

Three other aspects of training delivery deserve special note. First, every program uses a competency-based curriculum. Instructional materials and tracking of trainee progress are keyed to specific knowledge, skill, and attitude competencies, usually stated with performance criteria, and always related to specific work tasks. The work task then becomes the organizing mechanism for training content. Typically, learning activities are work-task based. Performing the task becomes the learning vehicle;

trainees learn by doing, and achieve mastery through repetition and refinement of technique. Moreover, they gain self-confidence as they achieve task mastery, knowing that the task is (or is very similar to) what they will do on the job. The task-based model also is extremely helpful for trainees with basic skill deficiencies.

A second notable aspect of training delivery observed in all the programs is an interaction pattern in the learning environment that differs from the interaction pattern of typical schoolrooms. Teachers and trainees generally interact on a first name basis. More important, in most laboratory training environments, and even many classrooms, the teacher assumes the role of supervisor, work is allocated by skill level and job priority, tasks are assigned to individuals or teams by work order, and timely performance is expected. In addition, interaction patterns mimic work environments as trainee questions are frequently answered by referring trainees to reference manuals, by assisting the trainee decision-making process by asking "troubleshooting" questions, or by pairing the trainee with a more experienced participant. Trainees are neither given the answer nor abandoned to their own devices, but are guided to the information that enables them to answer the question for themselves. After trainees find the answer, they are reinforced with feedback. Again, it is a form of learning by doing, and is much more efficient and supportive than trial-and-error learning.

Another important aspect of the interaction pattern in training is demonstration and coaching. Most tasks are demonstrated by the instructor. Then trainees practice and learn the task with the instructor and often other more experienced trainees. These other trainees, who in some programs work like team leaders or crew chiefs, coach trainees, correcting and reinforcing their performance.

A third characteristic of training design is that virtually every aspect of model program curricula enables trainees to take control of their own lives. The nonoccupational-specific training content is aimed at building and developing life coping skills and a sense of personal accountability. A goal of all the training is to get trainees to accept adult-level responsibility for their own actions and decisions. Even the disciplinary options such as "time-out" areas and "suspension from work without pay" (for school absence, for example) are built on this model. Of course, lessons assigned as individual and team-work tasks also facilitate the acceptance of individual responsibility for performance.

Career Advancement Programs

The training provided in career advancement programs differs from school-to-work programs in that there is less concentration on entry-level, preemployment, or employability skills. Further, there is less concentration on basic skills unless an assessment has indicated a basic skills focus is warranted.

All of the career advancement programs use experiential training techniques, and also pay particular attention to the needs of the adult learner. Some of the considerations to accommodate adult learners follow.

- Instructors understand that each person's educational level and experience with new technology will vary. They begin at whatever level is appropriate for the individual employee and proceed at a pace comfortable to the individual to bring the individual up to the level of the class. Sometimes pacing is accommodated by providing tutoring.

- Instructors recognize that stress may be associated with being back in the classroom so they help employees adjust, and demonstrate the practical application of what they will be learning. As one instructor put it, "Technology is changing so rapidly that we must make people comfortable with constant change."

- Flexible schedules are used for training in most programs. Among the options, training can be offered during regular working hours, in the evening, or, in some cases, on Saturday mornings.

- Special attention is given to help people make up for missed classes. Most training managers feel that even when an employee drops out of a class, that person has still learned some things that will improve productivity on the job. Therefore, a dropout is not necessarily considered a program failure. Employees are often told that they will have the opportunity for training again even if they drop out, and some do go back into the class at a later date.

- Trainees get one-on-one attention from the instructor as needed. Worksite demonstrations of new technology are commonplace, and tutoring is provided as needed, without stigma.

- Small groups or teams are used to target instruction to the appropriate level.

- Generally, trainees' grades do not go to their supervisors. However, courses completed and degrees obtained are noted in their personnel files and often count toward continuing credit at the partner educational institution.

In addition to these factors, individual programs have developed particular policies and modes of operation to enhance learning. For instance, Crouse-Hinds training policies are very responsive to employees' needs. The training manager made it clear

that if a training program is not going well for the employees, she will suspend classes until changes can be made in the instructional style or content of the material being presented. The opinions of the employees about the usefulness of the class and the teaching techniques of the instructor appear to have high priority. They also use employees as instructors when practical. They have an inhouse "training-the-trainer" course which stresses adult learning principles. The Indian-Meridian AVTC provides both special crosscompany training sessions for employees of companies in the CEO network and local industry seminars featuring guest lectures by top experts in management and organization development.

Training Mix

The mix of training components, including the time spent on each content area, varies widely from program to program. The mix is influenced by such factors as certification requirements, graduation requirements of the institution offering the training, and the demands of the industry. The needs of the trainees also influence the mix of training components in programs designed for the adult learners and for at-risk populations.

School-to-Work Programs

Exhibit 6 displays the mix of components, location of training, and unique characteristics of the training offered in the school-to-work programs.

Industry certification requirements of the industry help determine the time requirements for programs such as JUMP where trainees spend 10 weeks full-time in the classroom and 400 hours in full-time OJT. That schedule was implemented a few years ago based on recommendations of the board and employers. Previously, trainees had spent the entire 20 weeks in the program dividing their days between classroom and OJT. The employers suggested that the training would be more effective if it were more concentrated, and the current schedule was adopted. The SICA program is structured around the certification requirements of the National Culinary Association (NCA), because graduates of the program are eligible for NCA Level I certification. However, the program also must meet the Technical Center's State-approved credit requirements for graduation in order for trainees to receive diplomas.

The training mix is influenced by such factors as certification requirements, graduation requirements of the institution offering the training, and the demands of the industry.

What seems especially noteworthy in most of the programs is the careful allocation of time to occupational, work-readiness, and academic basic skills, each considered

EXHIBIT 6

OTHER CHARACTERISTICS OF TRAINING IN SCHOOL-TO-WORK PROGRAM

Program	Mix of Components	Location	Unique Characteristics	Size
Huntsville School-to-Apprenticeship	16 hrs. per week academic • English • Government • Economics • History 20 hrs. per week OJT 4 hrs. per week related studies	Home high school (one of five) Job site Huntsville Center for Technology	Advanced credit in formal apprenticeship upon completion of program	Potential 12 to 20; currently 6 enrolled
Los Angeles Adult Regional and Skills Center Program	Wide variety of occupational skills Training is provided 16 hours per day, 6 days per week	12 employment prep centers 26 adult schools	Open-entry/open-exit Competency/task-based Modularized for individual pacing Mix of regular high school students with adults, disabled, disadvantaged, dropouts Some classes on site	
Louisville Partnership	Career developer teaches 11 competencies in small groups or larger class size Students work in competency area until achieved Work experience part-time	21 high schools in the district	Each of 11 youth competencies taught at increasing level of difficulty for 4 years of H.S. California Computer Curriculum (CCC)—Computer system for basic skills remediation	60-80 per school Training in informal groups of 3-20

EXHIBIT 6

OTHER CHARACTERISTICS OF TRAINING IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Mix of Components	Location	Unique Characteristics	Size
Philadelphia High School Academies	4 year high school program—vocational plus academic	Primarily at high school	Block rostering—academy students take all academic as well as vocational courses together Parental involvement encouraged Vocational & academic teachers coordinate curriculum	1750 enrolled in 14 academies
Portland Investment	Includes "academy" programs, job readiness programs, basic skills, GED, summer program with basic skills component	High school Community-based organizations	Program available to meet virtually any need either on direct service or referral basis Student Services Specialists in middle schools to address needs of at-risk students & families Parental involvement encouraged	2,300 in 16 programs

EXHIBIT 6

OTHER CHARACTERISTICS OF TRAINING IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Mix of Components	Location	Unique Characteristics	Size
Project COFFEE	Occupational skills, basic skills, pre-employment, job search, employability/life coping, physical conditioning 20 hrs per week academic 20 hrs per week occupational skills 80% time on task	High School (classroom shop or simulated work environment) Training programs operated as businesses	Flexible scheduling to allow for part-time employment	110 per year
St. Louis Off-Campus Work-Study	15 hrs. per week academic 20 hrs per week OJT	Classes and OJT located at place of business	Parental involvement Classes on site in space provided by company	100 per year
ANEW	35 hrs per week—5 mos Computer GED/basic skills Occupational skills taught in simulated work environment includes: occupational skills; physical conditioning employability life coping; job search; pre-employment	Program is housed in a wing of the Renton Vocational Training Institute	3 mos job search club (post-grad) Emphasis on spatial and physical skills Training in study skills Holistic approach Co-op ed or work experience available	50 per session

EXHIBIT 6

OTHER CHARACTERISTICS OF TRAINING IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Mix of Components	Location	Unique Characteristics	Size
JUMP	35 hrs. of classroom training per week that totals: 150 hrs. of basic math (geometry and trigonometry) and drafting principles/equipment, plus 250 hrs. specialized course in either drafting or construction inspection 400 hrs. OJT	Vocational Foundation, Inc. in lower Manhattan for classroom instruction Employer's workplace for OJT	One instructor teaches entire technical course, supplemented by visiting lecturers who address specific subjects (e.g, concrete, steel) Outreach specialist conducts employment-related workshops Trainees make field visits to active job sites/headquarters to observe operations Training initiates a career path Trainees are company employees	15-25 per cycle (2 cycles per year)
SICA	35 hrs. per week 2-year program—5 semesters per year 12 basic courses cover all aspects of food service/culinary arts 12 optional 9-week specialties Basic skills/GED available Computer fundamentals and job search/employability required	St. Augustine Technical Center	Operation of student cafeteria and faculty dining room Self-paced; student can be certified after completion of 50% of required hours	90

competencies which relate to employability skills and work maturity. In so doing, input was solicited from the private sector to ensure the relevancy of the curriculum to the needs of the employer community. In implementing the curriculum, the career developers try to gear the training to meet the needs of both the individual participants and the employers.

Of course, Louisville, Project COFFEE, and the other programs that are offered through the public high schools must either incorporate graduation requirements or ensure that they coordinate with the regular school schedule so that the trainees earn their diplomas. In Philadelphia, the programs are located at the regular high schools, but the students are "block rostered" so that they take all their courses as a group. However, despite the fact that they are not in the same classrooms as the other students, they take the same required courses.

Career Advancement Programs

At the Genesis Health Ventures program, a formal career ladder is used to legitimize the training program as a true career advancement endeavor. Training is 75-percent classroom, and 25-percent laboratory; however, classroom activities are not solely task-based and involve theory regarding aging and caring for the aged with application that is directly related to the job.

The training program is used by Genesis Health Ventures as a promotional technique to change the image of the nursing home industry on a general basis and, on a more specific basis, to change local community perceptions of an organization's ability to offer training that leads to better care for clients.

Crouse-Hinds provides occupational skills training to meet management needs, State requirements, apprenticeship requirements, technological changes, or employee development needs. They also provide general development skills such as team building, listening skills, supervisory training, and so forth.

With an open training policy encouraging all employees to participate, Crouse-Hinds is potentially preventing dislocation for some employees and providing career advancement for others. They work closely with their local union committee to ensure equitable access to training among all levels and classifications of employees.

Exhibit 6A summarizes the mix of components, location, and other aspects of the training in career advancement programs.

EXHIBIT 6A

OTHER CHARACTERISTICS OF TRAINING IN CAREER ADVANCEMENT PROGRAMS

Program	Mix of Components/ Occupational Training	Location	Unique Characteristics	Size
Crouse-Hinds/Cooper Industries	Training for employees in job-specific, skill specific, and general topics Offers 3 Associate Degree programs: 1) Applied Science 2) Management 3) Manufacturing Engineering Plus many other job-related and employee development programs	Crouse-Hinds plant Syracuse, New York	All training is on a voluntary basis, and is available to every employee Commitment to training is pervasive throughout company Training is viewed as both career advancement and prevention of worker dislocation	1,400 employee participants
Genesis Health Ventures	Career ladder training program for: 1) Nursing Assistant Specialist 2) Senior Nursing Assistant Specialist 3) Senior Nursing Assistant Specialist Coordinator 4) Associate Degree in Nursing 75% classroom/25% laboratory	30 nursing and retirement homes in New England and the mid-Atlantic region of the United States, 12 of which are clustered in the Hartford, Connecticut/Springfield, Massachusetts metropolitan areas Classroom location in community colleges near facilities, with Holyoke Community College being the oldest partner and having the most students	Use of the formal career ladder with increased pay to legitimize the program, and as a promotional technique/incentive Instructors use models, visuals, stories, newspapers, real world, task-based, work-based and theoretical learning situations Program is voluntary, and trainees participate on their own time	438 participants (over 2 years)

EXHIBIT 6A

OTHER CHARACTERISTICS OF TRAINING IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Mix of Components/ Occupational Training	Location	Unique Characteristics	Size
Illinois Prairie State 2000 Employer-based Program	Provides four types of training • New technology training such as computerized numerical control and office automation • Productivity/quality improvement training (e.g., statistical process control) • "Quality" management and supervisory training • Occupational "building blocks" skills training	On-site at various small to medium-sized "primary" companies in Illinois	**Northern Illinois:** Top-to-bottom saturation training of all kinds of employees, at all levels A one-stop, comprehensive approach in which an organization functions as both a broker (arranging training, securing funding) and training provider **Central/Southern Illinois:** Linkage of 2 parties (employer and training provider) with 2 parties (economic development council and program representative)	3,900 employees trained in program's fiscal year 1990

EXHIBIT 6A

OTHER CHARACTERISTICS OF TRAINING IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Mix of Components/ Occupational Training	Location	Unique Characteristics	Size
Indian-Meridian AVTC	Specific program examined focuses upon management and supervisory training but organization sponsoring this program also provides the seven participating employers with: • Occupational skills training • Training in specialized new techniques such as SPC and CNC • Office automation training • Training in safety and other specialized areas	On-site at seven participating companies in the local area	The Oklahoma State DVTE model included: • Management and supervisory training for a limited number of participating companies on an as-needed basis • Payment of an annual retainer fee • Partial funding of 1 professional position in the AVTC The local sponsor added 3 features: • A CEO Network of local plant managers who meet monthly • Special cross-company training sessions for employees of companies in the CEO Network • Local industry seminars featuring guest lecturers by top experts in management and organization The AVTC is run like a business—its superintendent is a CEO, rather than an education administrator. Unit managers must generate income to cover expenses. Instructors' pay is merit based; there is no such thing as tenure.	About 850

EXHIBIT 6A

OTHER CHARACTERISTICS OF TRAINING IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Mix of Components/ Occupational Training	Location	Unique Characteristics	Size
Milwaukee H.I.R.E. Program	• Outreach and recruitment of dislocated workers • Career/occupational assessment • Career planning • Job search skills training and job search assistance • Classroom/skill training • Basic skills remediation • On-the-job training • Job development and placement • Various support services	HIRE Center in South Milwaukee MATC and other schools for classroom/skill training Work sites for OJT	Teamwork, cooperation and coordination between the four key organizations Heavy involvement (in fact, catalyst role) by the AFL-CIO and their member unions Ability to provide (or arrange for the provision of) comprehensive services in one centralized location—one stop shopping	2,200 participants per year

SUPPORT SERVICES PROVIDED TO TRAINING PARTICIPANTS

The issue of support services is confounded because the definition of support services is program specific. What is considered a support service in one program may be viewed as an integral part of the training effort in another program. Many respondents discussed the need to treat the client holistically, considering and dealing with *all* the client's strengths and barriers as they relate to making the transition to the work world. At least six programs are moving in this direction.

Looking first at career advancement programs, the Genesis Health Ventures program provides two orientation sessions. One is an orientation to learning that deals with taking tests, improving study skills, writing term papers, managing time, and improving reading skills. The other is a family orientation and support session that helps trainees' family members understand the changes in family dynamics that will take place during training. Training is supported through the orientations, counseling services, career seminars, a tutoring program, and a mentoring program.

The Milwaukee H.I.R.E. program also provides a broad range of support services, either through program grant funds or the United Way. Child care is available to participants while they are engaged in training; passes are provided as transportation assistance, and financial counseling in areas such as family budgeting and credit/debt management is available. In addition, personal counseling and referrals for needs such as housing, health and medical care, legal services, welfare, and chemical dependency are provided by the United Way. Financial assistance of up to $200 is also available for participants relocating to new jobs outside a 60-mile radius of Milwaukee.

Many respondents discussed the need to treat the client holistically, dealing with all the clients' transition-related strengths and barriers.

Turning to the school-to-work programs, in Portland, under the "umbrella" of the Partnership programs, Student Services Specialists are assigned to various middle schools. They act as case managers to assist students and their families obtain necessary services related to academic progress, school attendance, social interaction, emotional and physical health interventions, and the transition to high school.

ANEW has three employment counselors on staff who make support service referrals and accompany the student to the service provider. Need for services may be identified by the student, or by the staff during regularly scheduled counseling sessions (all students receive at least 45 hours of counseling and 40 hours of class time focused on motivation, self-esteem building, and problemsolving). Referrals to counseling are made most often to assist participants in dealing with the trauma of

incest or for anger management. Other referrals are made for emergency food and shelter, medical and social problems, and child care needs.

Next year, the Louisville Partnership will begin a "Cities in Schools" program that will operate in three high schools and one middle school with more than 20 percent of the students enrolled in the free lunch program. The Centers will be staffed by case managers who will provide outreach to families of students in need of support services and make appropriate referrals. Eventually, many services will be coordinated through Cities in Schools and/or the Family/Youth Service Centers.

Regardless of program type, however, relatively few support services are provided directly by the programs in the study. Services that are provided most frequently relate to the training. For example, some of the programs offer tutoring for trainees who require assistance with training topics; some offer transportation, either by providing bus service or tokens for use on public transportation; and some offer counseling and placement services.

The study generated an expanded definition or categorization of support services because of the way that programs use the services to support training activities. Seven categories of support or adjunct services are described in the following sections: counseling/placement, scheduling, competency-based curriculum, child care, referral, employer-provided support services, and staff.

Counseling/Placement

Most of the school-to-work programs offer career (and in many instances, personal) counseling, often on an informal basis, by instructors and other staff, as well as in regularly scheduled meetings with a career counselor. Placement services also are provided by most school-to-work programs, both formally and informally, with instructors or job developers initiating contacts with employers. Even in programs where staff are designated as job developers, instructors contribute to the process through their personal networks to help students obtain desirable jobs. In fact, in many programs, instructors almost become a one-person employment agency and advocate for individual trainees.

Scheduling

The importance of scheduling in successful program operations cannot be over-stressed. Scheduling is seen as a support service in some programs. For example, several of the career advancement programs offer training both during and after working hours to fit conveniently into employees' existing schedules. In the school-to-work programs, PHSA "block rosters" students so that all Academy students follow the same class schedule to facilitate work-study components; the COFFEE

program uses individualized learning with home and school study to overcome child care and/or court-imposed restrictions on trainee time; and the Los Angeles Adult Program operates multiple sections of the same class spanning 15 hours a day, 6 days a week to enable trainees to better match their life constraints and school hours.

Competency-Based Curriculum

The competency-based curriculum is a pedagogical practice that also serves as a support service in both career advancement and school-to-work programs. It allows continuous updating of trainee progress *and* enables some programs, for example Los Angeles and Crouse-Hinds, to offer open-entry, open-exit, self-paced learning.

Competency-based materials also serve another training-related support, the individual learning contract. More than half of the school-to-work programs use some form of a personalized learning contract in which trainees, staff, and often parents commit in writing to individual trainee academic and vocational goals and activities, for a given period of time. The contract is signed by all parties and is used, sometimes as often as each week, to assess individual progress, focus expectations, and reward output. Trainees benefit because it clearly spells out expectations; enables them to experience success in incremental months; facilitates setting attainable and realistic goals; and helps them accept responsibility for their own actions because it is a contract they signed.

Child Care

Another important area of support service is child care. The H.I.R.E. program as well as three school-to-work programs, Los Angeles, ANEW, and COFFEE, give special emphases to the child care issue. H.I.R.E. offers child care while participants are in any of the program components, and pays for it on a voucher basis from grant funds. Project COFFEE uses individualized scheduling and offers study and referral services to community organizations to assist with child care responsibilities. ANEW uses referral and financial assistance to provide day care services. The Los Angeles Project uses two onsite day care facilities and a day care specialist training program to provide child care. Trainees in any program at the center can obtain child care at a cost of $3.00 per week while attending class; the fee buys breakfast and/or lunch for both the parent and the child. Furthermore, parents using the facility must spend time interacting with the child at the center. Reading to children is encouraged, thereby improving the parent's literacy skills while providing an opportunity for interaction.

Referral

In school-to-work programs that are not able to address all the trainee's needs, support services generally are offered on a referral basis. Need for the service is determined by program staff, with input from the client; a referral is then made to an appropriate agency or organization in the community. Sometimes a referral is simply telling the client where she or he might go for a particular service. Other times, the program staff brokers the service for the client, accompanies the client on the first visit to the service provider, and/or follows up with a phone call to the service provider to ensure that the client's needs are met.

Programs typically use whatever service providers are available in the community. The types of support service agencies and organizations used by various programs include the following:

- City or county medical health services;
- Emergency housing providers;
- Day care providers;
- Medicaid;
- Crisis centers;
- Food banks;
- Al-Anon and other support groups for specific issues (e.g., domestic abuse, sexual abuse);
- Publicly or privately funded social services; and
- Substance abuse programs.

Employer-Provided Support Services

In some cases, employers provide services to trainees. Crouse-Hinds provides books and materials for each trainee. In Huntsville, the employer may buy necessary work clothes or tools for the trainee and deduct the sum from the individual's paycheck over a period of time. Some employers also reimburse trainees for tuition, books, and tools at the successful completion of the apprenticeship training.

Staff

One additional support service must be noted—the instructor. During interviews at virtually every site, we heard stories of individual teachers simply assuming the role of service provider and making things happen for the trainee. Trainees have lived in teachers' houses as a form of emergency housing, trainees have received "anonymous" food and clothing stipends or gifts, trainees' children have been cared for by instructors' spouses, and medical/dental bills (especially emergencies) have been paid. Trainees even have been released by the courts and police to the custody of the teacher. This personal caring and individual commitment often is cited by the trainee as a reason for success.

ASSESSMENT OF TRAINEE PERFORMANCE

Criteria used to assess trainees' performance in the school-to-work programs typically include grades, attendance, and skill/knowledge testing. Competency-based curricula in use in every program provide very specific performance criteria against which progress is measured. Skill and knowledge testing accompanies each module of the particular occupational area, preemployment/work maturity area, and academic area (depending on the program). Both paper and pencil testing, and performance (skill) testing are routinely employed. The Louisville Partnership relies primarily on oral, rather than paper and pencil testing, whereas Project COFFEE uses oral, written, and performance tests. Some programs (e.g., Huntsville, JUMP) assess both the classroom and workplace learning.

The methods of assessing trainee performance in career advancement programs vary in some respects from methods used in school-to-work programs. The career advancement programs typically, but not universally, rely less on grades, attendance and formal examinations, and more on employers' assessments and on documentation of formal attainment of degrees. At Genesis and Crouse-Hinds, trainees are given exams at the conclusion of each module, but their performance also is evaluated during discussions and hands-on activities. Grades, attendance, and tests are used in assessing trainees enrolled in classroom/skills training, and the supervisors assess the OJT trainees. The H.I.R.E. program has similar assessment practices, whereas the Prairie State 2000 programs emphasize assessment of the employee's job performance.

Graduation/Skill Certification

Upon completion of the program, trainees in the seven secondary school-to-work programs may receive a high school diploma. In these cases, students must meet the respective State's graduation requirements.

Skill certification is provided by at least 6 of the 10 school-to-work programs. The type of work skill certification given by each program is described below:

- SICA graduates complete 12 courses in the basic, 2,160-hour, 2-year program. They receive a diploma and a copy of their competency certification, which is based on attending at least 50 percent of the hours required in each of the 12 courses and attaining competency in each area, as assessed by each instructor. The certification also includes employability skills.

- The Huntsville School-to-Apprenticeship certificate is given to students who have completed 2 years of vocational training and the work component during their senior year. A four-point scale is used to rate students in each major competency area:

  4 = *skilled*—can work independently without supervision;
  3 = *moderately skilled*—can perform job completely with limited supervision;
  2 = *limited skill*—requires instruction and close supervision; and
  1 = *no exposure*—has no experience or knowledge in this area.

- Louisville Partnership graduates receive a certificate of competencies in the 11 youth competency areas recognized by JTPA. This certificate is awarded along with their high school diploma.

- JUMP graduates receive a certificate after completing 400 hours of classroom work and 400 hours of supervised on-the-job training from their employers. The instructor continues to monitor the trainees for 6 months after the completion of classroom training. The certificate enables them to enroll with the National Institute for Certification in Engineering Technology (NICET), which shows readiness to prepare for Level II certification (requiring at least 2 years' work experience).

- The Los Angeles program awards a certificate of proficiency within the student's occupational program, on which is noted not only the course of study, but also the specific competencies achieved and level of mastery achieved on each of those competencies. The level of mastery is determined by the appropriate advisory committee and school supervisor of instruction working with the content specialists.

- ANEW graduates receive a certificate of completion from ANEW and the Renton Vocational Technical Institute, which houses the program. The certification is based on at least 75 percent or 525 hours of attendance and

70 percent achievement overall on the performance objectives documented in the construction trades and electrical/mechanical basic skills training, job/life skills training, and strength-building component.

All of the career advancement programs in the study offer trainees certificates upon successful completion of training. In two of the programs, Crouse-Hinds and Genesis Health Ventures, trainees can also earn an associate degree, depending on their level of program participation and self-motivation. Those who complete Genesis Health Ventures' program also earn certification of their skills, award pins and, at the top level in the career ladder, R.N. licensure, based on the training and successful passing of the State board examinations.

All of the career advancement programs in the study offer trainees certificates upon successful completion of training.

Data on the assessment of trainees' performance in school-to-work and career advancement programs appear in Exhibits 7 and 7A, respectively (pages 95 and 103).

ASSESSMENT OF SERVICE PROVIDERS' PERFORMANCE

Programs differ in the nature and extent of outcome data available to assess the performance of service providers. This section focuses on the educational/training services, not on adjunct or support services, provided to participants.

School-to-Work Programs

Several of the school-to-work programs in the study use JTPA monies for all or part of their funding. Therefore, they have performance-based contracts with their local Private Industry Council and are required to maintain careful records about completion rates, placement rates, average wage at placement, and retention rates at specified periods following placement. They also are required to target specific population segments for service. ANEW, the Portland Investment, the Los Angeles Adult program, and the Louisville Partnership are in this category. JUMP must prepare a monthly training progress report and job site visitation report to the NYSDOT and consultant engineering firms, as well as an annual report to NYSDOT. Other programs do not have requirements to collect standardized data on a regular basis (e.g., Huntsville School-to-Apprenticeship). The level of detail reported here varies as a function of data availability, funding requirements, and program complexity.

The secondary programs generally are intended to improve student attendance in school, improve basic skills proficiency, decrease the number of dropouts, increase the number of graduates and provide skills training to enhance students' employabil-

ity after graduation. Postsecondary programs emphasize skills training and improved career opportunities. Based on information from the programs, all are experiencing some degree of success, even if the magnitude of the changes has not always reached the level desired. Of course, this is a function in part of program maturity, the target population served, and the ability of the program to respond to changing needs within that population. Data regarding program performance are summarized below and in Exhibit 7.

Attendance

The Louisville Partnership reported that, among the 1,237 freshmen and seniors who enrolled in the program during its first year (1988-89 school year), absenteeism was reduced by 17 percent. These Partnership students were in school more than 90 percent of the time. A similarly high figure was provided by PHSA (more than 90 percent) for its approximately 1,700 students, grades 9-12. The Portland Investment and Project COFFEE also have documented improved attendance rates.

Dropouts

The dropout rate for the Louisville Partnership students was 63 percent less than that for the Jefferson County Public School District students overall, and in both cases was less than 5 percent of the population. PHSA and JUMP each averaged less than a 10-percent dropout rate. The Portland Investment and Project COFFEE experienced a decrease in dropout rates, while the St. Louis Work-Study and Huntsville School-to-Apprenticeship programs have had very low proportions of dropouts. For example, Huntsville has experienced only two dropouts in its 5-year history.

Basic Skills

Three programs reported improvement in basic skills—Portland Investment, Louisville Partnership, and Project COFFEE. The improvements were reported as statistically significant results.

Graduates

Project COFFEE data indicate that more than 85 percent of the program participants graduated from high school. Portland Investment's efforts also have resulted in higher graduation rates (from 90 to 100 percent, depending on the program) as well as GED completions. In the Los Angeles program, the proportion of graduates among at-risk students enrolled in concurrent school (both occupational training and regular day school) was much higher than that for at-risk students enrolled only in day school (62 percent versus 19 percent). ANEW has achieved a 75-percent completion rate.

EXHIBIT 7

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN SCHOOL-TO-WORK PROGRAMS

Program	Development of IEP, ITP, or Training/Contract Agreement	Criteria Used for Assessing Trainees					Assessment Data on Service Providers' Performance
		Grades	Attendance	Skill/Knowledge Tests	Employer Assessment	Credential/ Certification Given	
Huntsville School-to-Apprenticeship	Training agreement signed by student, parents, vocational instructor, program coordinator, and employer. Outlines responsibilities of all parties	Yes (must maintain a C average)	Yes	Competency-based testing in each module in particular occupational area	Rates skill and quality of work, attendance, punctuality, and overall performance during OJT	Competency certificate in occupational field with skill rating (4-pt. scale) in each major competency area	Only 2 dropouts in 5-year history Estimate 50% of graduates enter apprenticeship at average starting wage of $5/hr; 20% enter college; 20% go into military; 10%—other
Los Angeles Adult Regional and Skills Center Program	Training plan developed by staff and trainee	Yes	Yes	Competency-based testing in each occupational area Progress is tracked on training plan	Rates competencies only in industry-based classrooms where employer provides instructor and during OJT	Certificate of proficiency within occupation, with specific competencies and level of mastery achieved within each competency; also H.S. diploma/GED for students in that track	Served over 400,000 people last year Averaged 80% placement rate in trade or related trade among 20,000 students (many at-risk) served in business and industry schools Graduation rate of at-risk students in concurrent school much higher than those in day school (62% vs. 19%)

EXHIBIT 7

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Development of IEP, ITP, or Training/Contract Agreement	Criteria Used for Assessing Trainees					Assessment Data on Service Providers' Performance
		Grades	Attendance	Skill/Knowledge Tests	Employer Assessment	Credential/ Certification Given	
Louisville Partnership	Agreement signed by student, parents, and career planner Education and Employability Development Plan prepared for each student	Yes	95%	Performance-based and oral testing on each preemployment and work maturity competency	May choose to provide 1 of 3 recommendation letters or rating sheets on attitudes that student is required to obtain	H.S. Diploma and certificate of competencies in 11 areas	1989-90 data: High attendance (over 90%) Dropout rate of 1.1% compared to overall district rate of 2.96% 136 more students continuing education in 1989 than in 1988 Increased GPA in English (2.44 to 2.51) and Math (2.32 to 2.41) Among 535 seniors, 203 placed in jobs and 332 in post-secondary school or still in high school
Philadelphia High School Academies	Training agreement signed by student, parents, and staff. Outlines responsibilities of all the parties	Yes (primary measure)	Yes	Yes	Completes performance evaluation forms	H.S. Diploma	1988-89 data: High attendance (88%) Low dropout rate (under 10%) High post-graduation employment and postsecondary rates (over 85%)

EXHIBIT 7

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Development of IEP, ITP, or Training/Contract Agreement	Criteria Used for Assessing Trainees					Assessment Data on Service Providers' Performance
		Grades	Attendance	Skill/Knowledge Tests	Employer Assessment	Credential/ Certification Given	
Portland Investment	Varies across the 16 programs	Yes (in most programs)	Yes	Yes	In some programs	H.S. Diploma GED	Summary across 16 programs for 1988-89: Increased attendance Decreased dropouts Improved basic skills Higher graduation rates (90-100%) and GED completion Higher entered employment and postsecondary education rates
Project COFFEE	IEP developed by school staff and parents. Includes goals, performance levels, tasks and objectives	Yes	10 pts. per quarter	Performance-based competency testing (usually weekly) Program is tracked against IEP	N.A.	H.S. Diploma	Significant gains in reading and math Improved student attendance 85% graduate 70% of graduates are employed 50% of graduates employed in jobs related to occupational training
St. Louis Off-Campus Work-Study	Training plan for position prepared by SLPS supervisor and submitted to company coordinator; student signs contract to uphold rules of program and company; parent signs consent form	Yes (must maintain a D average)	Yes	Yes (standard SLPS testing for coursework)	Grades work performance and behavior during OJT	H.S. Diploma	Cumulative over program duration: Dropout rate of less than 5% Improved attendance Placement rates of 75-80% and continuing education rates of 15-20%

EXHIBIT 7

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Development of IEP, ITP, or Training/Contract Agreement	Criteria Used for Assessing Trainees					Assessment Data on Service Providers' Performance
		Grades	Attendance	Skill/Knowledge Tests	Employer Assessment	Credential/ Certification Given	
ANEW	ITP signed by trainee and staff. Identifies goals and occupational objectives with DOT codes, potential barriers affecting training and employment, program and support services needed, and plan of action prior to and during training	Yes	75% (525 hours)	Competency-based testing	Only for those students in cooperative education	Certificate of completion, based on 75% attendance and accomplishing 70% of overall performance objectives as documented on grade report	7/1/88-11/30/89 data: 75% completion rate 71% placement rate 63% retention rate Average wage at placement $8.49/hr 50% of jobs paid $8/hr or more 22% of jobs were in apprenticeship programs
JUMP	VFI client agreement signed by trainee. Spells out rules and regulations including hours of work, dress code, and penalties Employer has signed agreement with JUMP that refers to trainee Employers have employee-employer relationship with trainees	Yes	Yes	Competency-based testing	OJT segment after coursework is competency-based and tied to State/ NICET requirements	Certificate after completing 400 hours classroom work and 400 hours OJT; may enroll with NICET to show readiness to prepare for Level II certificate	Pay scale: $7.50-$10.00/hr 72% of 225 graduates since 1980 are still in engineering field, many with original firms. A few have obtained college degrees or been certified as NICET Level II, III, or IV inspectors

EXHIBIT 7

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Development of IEP, ITP, or Training/Contract Agreement	Criteria Used for Assessing Trainees					Assessment Data on Service Providers' Performance
		Grades	Attendance	Skill/Knowledge Tests	Employer Assessment	Credential/ Certification Given	
SICA	Contract signed by students. Explains program objectives and competency requirements	Yes	At least 50% of hours required in each of 12 courses	Competency-based testing	N.A.	Diploma and copy of competency certification, including employability skills, based on 50% attendance and competency attainment in each area	92% of graduates obtained jobs at higher-than-entry levels Program won U.S. Secretary of Education award for most outstanding vocational program in Southeast in 1983

Placement (and Other Outcomes)

The view held by the Los Angeles program staff is that their mission is not accomplished until each trainee is placed in the job for which he or she was trained or one that is closely related and uses similar skills to those acquired during training. Among the 20,000 students, many of whom were at risk, served in the Los Angeles program's Business and Industry Schools, 80 percent accomplished that goal. PHSA reported that its postgraduation placements exceeded 85 percent. Of the Louisville Partnership's 535 seniors, 203 were placed in jobs (38 percent) and the remainder went on to postsecondary institutions or, in some cases, stayed in high school to work toward their diploma. Seventy percent of Project COFFEE's graduates were employed—40 percent in jobs related to their skills training. During the life of the Huntsville School-to-Apprenticeship program, an estimated 50 percent of the graduates have entered an apprenticeship program, about 20 percent each have gone into college or the military, while the remaining 10 percent have chosen other options.

Starting Wage

SICA reported that 92 percent of its graduates obtained jobs at higher-than-average entry-level pay. In Huntsville, graduates who enter apprenticeship begin at about $5 an hour. JUMP trainees earn from $7.50 to $10 an hour, depending on the employer's assessment of the trainee's skill and experience levels. Over the period from July 1, 1988, to November 30, 1989, the average placement wage among ANEW graduates was $8.49 an hour, and 50 percent of the jobs paid $8 or more an hour. Twenty-two percent of the jobs obtained were in apprenticeship programs that will lead to wages ranging from $18 to $24 an hour in 3 to 5 years when journey-worker status is reached. Certainly in the postsecondary programs, these higher-than-average entry-level wages open the door to significantly improved career opportunities and, for ANEW and JUMP graduates especially, provide a way out of the economically disadvantaged circumstances experienced by most participants. Most of the secondary school programs do not have data on starting wages of their graduates.

Job Retention

Data on retention in employment are not widely available. ANEW reported a retention rate of 63 percent among the graduates placed during the 17-month period from July 1, 1988, to November 30, 1989; the figure indicates a loss of only 8 percent since placement. Given the target population and nontraditional occupational fields those women are entering, this figure is impressive.

Findings from a survey conducted last year by JUMP offer rather persuasive evidence of the efficacy of that program. Seventy-two percent of the 225 graduates since 1980 are still in the engineering field, many with their original employers. A few of these individuals have gone on to obtain college degrees or become certified as NICET Level II, III, or IV inspectors (Level II requires 6,228 hours of training/experience; Level III takes another 3 years after that). One of the partners in the St. Louis Work-Study program is Ralston Purina. After 22 years of involvement, the firm presently employs over 100 graduates in entry-level to mid-management positions.

Other formal evaluation efforts, in addition to the ongoing evaluations required by school systems and JTPA grantees, have been undertaken in some of the sites visited. Several programs have been involved in one or more evaluations by third-party contractors, including Project COFFEE, the Huntsville School-to-Apprenticeship program, and the Los Angeles program. Portland Investment programs share a common data collection format for reporting outcomes to the Leaders Roundtable. This is part of an evaluation effort included in the 10-year plan. Other phases of the evaluation are being planned now. PHSA is developing a standard evaluation component for the program, apart from the continuing evaluation activities required by the school system.

The biggest challenge for programs is deficits in the skill levels and work ethics of the emerging workforce—deficits that require identifying viable solutions and paying the costs of remediation necessary to ensure sustained productivity.

A final and critical assessment measure sought continually by all the programs is employer satisfaction and retention in the program. It is clear that employers as a group are supporting program efforts in each site by hiring graduates and retaining them, if not as long-term employees, certainly for a sufficient period of time that employers can recoup at least part of their investment of time and money. The school-to-work programs in this study average 14 years in operation. So it is not surprising that some employers at each site have been involved with a program for a number of years. These employers, along with others recruited through ongoing outreach to industry, are sustaining program efforts. This does not mean, however, that the programs are not facing some serious problems. Reportedly, the biggest challenge is deficits in the skill levels and work ethics of the emerging workforce—deficits that require identifying viable solutions and paying the costs of remediation necessary to ensure entry-level workers who can contribute to sustained productivity. This has major implications for the program partners in virtually every site visited.

Career Advancement Programs

Most of the career advancement programs examined had some evaluation or measure of the service providers' performance; however, methods vary, depending on the

company (see Exhibit 7A). Genesis Health Ventures screens potential instructors on factors such as platform skills, direct practical experience, quality employment history, significant experience in long-term care, and the ability to relate well to students from a variety of educational backgrounds. They also use employee retention rates as an indicator of success and experience. Their employee retention rate of 93 percent, rather than the industry average of 40 percent, over the life of the program testifies to the effectiveness of training. Fourteen percent of the total number of graduates have gone on to further their education.

Several of the career advancement programs rely on an annual assessment by the employers. Prairie State 2000, for example, asks those firms whose employees received training through the Management Association of Illinois to complete an annual evaluation form.

Human resource managers in participating firms assess the contributions of the training to team building, productivity, and product quality made by the Indian-Meridian team. In addition, standard training evaluation forms are completed by the participants at the end of each management/supervisory training session. And, interestingly, Stillwater AVTC also assesses the management and supervisory training program's financial performance at the end of each fiscal year. Unit managers at the AVTC are delegated substantial responsibility for generating income to cover expenses within their areas of responsibility. Part of their job is to establish tuition levels, generate individual and organizational participation in programs, apply for applicable State and Federal subsidies, and operate their programs "in the black" each year. The activities must generate enough revenue to support their units. Thus, the ultimate assessment for their training program is the market test: can the program generate enough revenue to sustain itself?

The Milwaukee H.I.R.E. program is monitored by factors such as enrollment and placement rates; however, there is no formal evaluation component. The H.I.R.E. program strives to achieve 100-percent enrollment in training and 100-percent re-employment at 70 to 80 percent of the previous wage level.

PROGRAM FUNDING

Information on program funding can cover a wide array of costs and allocation of program resources. Because this study examines linkages among programs, the examination focuses on the following areas which are most germane to the topic:

- Total budget;
- Sources of funding;
- Types of in-kind contributions;
- Cost per student or training slot; and

EXHIBIT 7A

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN CAREER ADVANCEMENT PROGRAMS

Program	Screening or Pre-Training Assessment Practices	Trainees' Performance	Service Providers' Performance
Crouse-Hinds/Cooper Industries		Attendance (only 3 personal absences) Courses completed and degrees obtained are noted in personnel file	
Genesis Health Ventures	Employees are *screened* into program, based on: 1) employed at least 6 months 2) consistent above average performance rating 3) desire to continue education 4) agree to continue working for company 5) interview 6) an essay about why they want to be in the program	Exam at the end of each module; discussions and hands-on activities 4 levels of credential/certification: 1) Nursing Assistant Specialist 2) Senior Nursing Assistant Specialist 3) Senior Nursing Assistant Specialist Coordinator 4) Associate Degree in Nursing	Instructors screened prior to training on: 1) Platform skills 2) Direct practical experience 3) Quality employment history 4) Significant experience in long-term care 5) Ability to relate well to students from a variety of educational backgrounds Employee retention rate of 93% over life of program instead of industry average of 40%
Illinois Prairie State 2000 Employer-based Program 151	In one of five companies reviewed, employees were assessed prior to training and determined to be: 1) Job ready in all mathematical skills (no training required) 2) Competent in basic mathematical skills but in need of specialized job-related training 3) In need of basic skills training in mathematics Language barriers were also identified	Employee job performance is assessed 152	Telephone contact with company by Prairie State staff at mid-term of training Standard training evaluation forms are completed by the participants at the conclusion of each management/supervisory training session Retention of trainees for 90 days after training is required for trainer to receive full funding Employers who receive training through the Management Association of Illinois complete an annual evaluation form

EXHIBIT 7A

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Screening or Pre-Training Assessment Practices	Trainees' Performance	Service Providers' Performance
Indian-Meridian AVTC			Human resource managers assess contribution of training to team-building, productivity, and product quality Assessment of management and supervisory training program's financial performance is conducted at the end of each fiscal year

EXHIBIT 7A

ASSESSMENT OF TRAINEES' AND SERVICE PROVIDERS' PERFORMANCE IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Screening or Pre-Training Assessment Practices	Trainees' Performance	Service Providers' Performance
Milwaukee H.I.R.E. Program	A variety of needs and occupational assessments are used, including: Needs Assessment—Questionnaire on various factors which may influence career planning. Data gathered on age, education, experience, work history, tentative goals, areas of interest, barriers to employment, and related employment and educational needs Basic Skills Assessment—Assesses basic abilities in reading, language usage, clerical speed and accuracy, space relations, numerical skills, and mechanical reasoning Interest Inventory—Based on personality types (reactive, investigative, artistic, social, enterprising, and conventional) coupled with about 1,200 occupations Vocational, Interest, Experience, and Skills Assessment—Combines the results of the previous two instruments into a charted "world of work" concept—divided into data, people, ideas, and things. The resulting information provides possible career choices and options. OJT contracts between employers and the Job Service	Tests/grades for classroom/skill training; employer assessment for OJT For classroom skill training, course completion certificates; diplomas; associate degree	Program is monitored by factors such as enrollment and placement rates; however, there is no formal evaluation component The HIRE program strives to achieve: • 100% enrollment in training • 100% reemployment at 70-80% of the previous wage level

- Leveraging of funds.

School-to-Work Programs

As can be seen in Exhibit 8, the total annual budgets in 6 of the 10 school-to-work programs for which data are available ranged from a low of $378,695 (ANEW with its 92 students) to a high of $123 million (Los Angeles with its 408,624 cumulative yearly enrollment). These figures reflect direct funding only and exclude in-kind contributions. The four programs for which total budget figures are not provided (Huntsville School-to-Apprenticeship, JUMP, St. Louis Work-Study, and SICA) seem clearly to rank at or below ANEW's level.

In looking only at the direct funding totals and sources in the first column of Exhibit 8, it is clear that all school-to-work programs in the study are funded primarily by public monies, with the exception of PHSA. However, the role of the Philadelphia school district in the academies program, and the role of the private sector in the St. Louis Work-Study program, requires some explanation in discussing funding sources.

The PHSA budget is $800,000, of which 70 percent comes from private sector donations and 17 percent from the Pew Foundation, a private trust. PHSA, however, is a nonprofit organization established to administer and operate the program. The Philadelphia school district actually pays for the base salaries of academy teachers, the school facilities, and all attendant costs, as well as lots of supplies and equipment. This "in-kind" contribution must be valued in the millions of dollars. One could argue that the school system has to serve the students regardless of the academies' existence so that these costs should not be categorized as in-kind contributions. Regardless of how costs are categorized, they are highly significant in the total cost equation and effectively make the program predominantly publicly funded. Also significant are the donations made by private companies to equip the academies. For example, the environmental science academy lab contains equipment valued at between $600,000 and $750,000. With the exception of one $17,000 machine, all of the equipment was donated.

The other program, St. Louis Work-Study, reflects the opposite side of the coin. The St. Louis Public Schools (SLPS) pay for the 11 school staff (primarily teachers in charge of the half-day academic coursework for students in company-based or other offsite classrooms), plus equipment and furniture for classrooms where not provided by the employers. The in-kind contributions of employers include space, equipment, a program liaison, one or more supervisors, and half-day job slots for the students. The amounts contributed by employers vary considerably, with Ralston Purina's $110,000 of operating costs representing the high end of the scale. But the aggregate costs of the employers' contributions appear to average more than the approximate

EXHIBIT 8

PROGRAM FUNDING IN SCHOOL-TO-WORK PROGRAMS

Program	Program Funding/Sources	In-Kind Contributions	Cost Per Trainee
Huntsville School-to-Apprenticeship	Total budget: Not provided Alabama Department of Education spends $526,000 on this program for 200 students in 4 locations. At Huntsville, funds support 2 full-time instructors for 10 months, 1 part-time (4 hrs/wk) instructor and 1 part-time (5 hrs/wk) coordinator.	$1,000 from employer (equipment and instruction) $1,000 from student ($200 tools plus 190 days' transportation to worksite)	$3,420 (half from the State; half from employer—$4.50/hr x 20 hrs/wk x 38 weeks)
Los Angeles Adult Regional and Skills Center Program	Annual budget: $123,000,000 Funding sources: State apportionment (Adult Education Fund and General Fund); Federal, State, local funds (Adult Basic Education Program; JTPA; Greater Avenues for Independence; ESL Supplemental Funding; Immigration Reform and Control Act) Supports 3,000 staff and facilities	Various, including equipment for training and worksite training facilities from employers and community organizations	Varies as a function of program option Average $459.80 per year
Louisville Partnership	Total budget: $825,000 Funding sources: City of Louisville; Jefferson County Government; Jefferson County Public Schools; PIC (80%); Chamber of Commerce; United Way Supports 28 staff	Some promotional activities/materials and job slots paid by employers School facilities/equipment Time/expertise of business and other leaders	Not provided

EXHIBIT 8

PROGRAM FUNDING IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Program Funding/Sources	In-Kind Contributions	Cost Per Trainee
Philadelphia High School Academies	Total budget: $800,000 Funding sources: Private sector donations (70%); PIC (JTPA $ -- 18%); PEW Foundation (private trust – 12%) Supports 12 PHSA staff plus teachers' overtime/student activities	School district pays for base salaries of teachers and facilities/equipment/supplies Equipment given by private companies (in one lab valued at $600,000+) Time/expertise of business and other leaders	$500 (in addition to $3,000 cost per student borne by school districts)
Portland Investment	Total budget: $4,600,000 Funding sources: PIC; public schools; city and county governments; businesses; United Way; Urban League	Unsubsidized wages paid by employers for youth in work experience programs Time/expertise of business and other leaders	Varies as a function of particular program. Specific information not provided
Project COFFEE	Total budget: $532,800 Funding sources: Each of the school districts that buy slots and services for students; Oxford School District (host district) Supports 18 staff	Oxford School District provides building/ some equipment/supplies Digital provides curriculum materials, staff training, consultation and job training experiences for students	$5,000 (+ transportation services for about 60 students @ $1,000 approximately)
St. Louis Off-Campus Work-Study	Total budget: Not provided Funding sources: St. Louis Public Schools (SLPS) Supports 11 SLPS staff and equipment/ furniture where not provided by company	Employers provide space, equipment, a program liaison, supervisors, and work-study positions for students (Ralston-Purina contribution, $110,000, is at high end of scale)	In program with 20 students, cost to SLPS is about $2,000 (more if have fewer students)
ANEW	Total budget: $378,695 (20% less starting 7/1/90) Funding sources: Seattle-King County Private Industry Council (PIC) Supports 7 full-time staff	$56,700 from Renton Vocational Institute's State voc ed funds for building, office space, utilities, ground maintenance Time/expertise of business and other leaders	Per slot: $3,787 Per placement: $5,826

EXHIBIT 8

PROGRAM FUNDING IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Program Funding/Sources	In-Kind Contributions	Cost Per Trainee
JUMP	Total budget: Not provided Funding sources: employers through contracts with New York State Department of Transportation (NYSDOT); engineering societies Supports 2 full-time staff	VFI provides facility and support services Employers pay for trainees' fringe benefits and supervisors' time not reimbursed by NYSDOT Time/expertise of business leaders	$3,980 for 400 hours classroom time and counseling/monitoring support during 400 OJT
SICA	Total budget: Not provided Funding sources: Florida Department of Education; Federal/State funds (JTPA, JOBS, Pell Grants, Single Parent Program); student tuition; lunch revenues Supports 38 staff	St. Augustine Technical Center (SATC) houses program Restaurant equipment given or sold at reduced cost by vendors Time/expertise of business and other leaders	$12,000 per year is given to SATC by the State (based on 4 counts per year of SICA's full-time enrollment with quarterly payments of $3,000)

$2,000 cost per student to SLPS, effectively making this a predominantly privately funded program.

Funding Categories

The two major categories of public funding in the school-to-work programs are education monies (from local, State and, to a lesser extent, Federal sources) and employment and training funds from the JTPA. Other categories play a much less dominant role overall, though a very important role to the individual programs involved.

Within the education monies category, one primary source is the State Departments of Education, which utilize State tax dollars as well as Federal allocations of vocational education monies authorized under the Carl Perkins Act to support the educational/ training activities of at least three programs. The other primary source in this funding category is local school districts, which use a combination of local and State tax dollars. Seven of the ten school-to-work programs receive funding *directly* from one or both of these sources (only PHSA, ANEW, and JUMP do not). If we factor in the Philadelphia school district's contributions, and the in-kind contributions to ANEW from the Renton Vocational Technical Institute—funded by State vocational education monies—then JUMP stands alone as not receiving any public *education* funds.

The two major categories of public funding in the school-to-work programs are education monies and employment and training funds from the Job Training Partnership Act.

A third major source of funding is the local Private Industry Councils (PICs) which receive monies authorized under the JTPA for job training of targeted populations. JTPA monies comprise most or all of the budgets for three of the six school-to-work programs funded by their local PICs: ANEW, 100 percent; the Portland Investment, above 50 percent; and the Louisville Partnership, 80 percent. (The proportions of JTPA dollars supporting the Los Angeles program, PHSA, and SICA are much lower.)

City and/or county governments, as well as private organizations (United Way, Urban League, local Chamber of Commerce) contribute to the total budgets in Portland and Louisville. However, their funding levels are relatively modest in comparison to the other partners.

JUMP represents an anomaly among the 10 programs. Its primary funding source is the New York State Department of Transportation (NYSDOT), whose contracts with engineering firms include a requirement to provide training and employment to

a minority or female for a specified time based on the number of labor hours in the contract. This provision stems from a Federal requirement relating to the use of Federal gasoline tax dollars. The consultant firm pays Vocational Foundation, Inc. (which operates JUMP) a flat fee for each trainee's classroom work that actually comes out of the firm's NYSDOT contract.

In-Kind Contributions

The subject of in-kind contributions in the school-to-work programs has already been introduced. A review of Exhibit 8 reveals that these contributions are found in every program and range from rather modest to highly significant dollar amounts. Both private and public sector organizations contribute in kind. In addition to those already mentioned, a comment on the exhibit's entry "time/expertise of business and other leaders" is appropriate. As noted in the linkages section of this report, a number of business and community leaders in virtually every site provide ongoing direction and oversight to their respective programs. In addition, these and other individuals review curricula, make presentations to students, provide tours of their businesses to the students, conduct practice interviews with students, critique résumés, train and/or guide program staff, and provide unsubsidized jobs and supervision to students/ trainees. The value of their contributions is incalculable and very substantial.

The final column in Exhibit 8 presents information on cost per trainee. The figures vary as a function of type and length of program and what costs each program has elected to include, thus any comparisons or conclusions based on these figures should be interpreted with care. Among secondary programs for which school year costs are provided, Project COFFEE appears at the upper end of the range with a cost per trainee of $5,000, plus transportation costs for some students, while St. Louis is found at the low end with $2,000. But, as already noted, the St. Louis figure does not include the employer's contribution, and the Huntsville figure of $3,420 only counts the cost of OJT slot not the classroom training. Among postsecondary programs, there are similarities in the dollar totals of ANEW's cost per slot of $3,787 for an average 700 hours of training and JUMP's $3,980 for 400 hours of training plus counseling/monitoring support during the next 400 OJT hours, but the duration of the training effort is certainly different. The much higher SICA figure of $12,000 annually may include costs not reflected in the figures for the other programs, such as facilities, equipment, all support and other staff, building and grounds maintenance, etc. A true cost-per-student figure would require its own study, but a general impression of the budgets, services provided, and numbers served is that the costs are relatively modest.

Leveraging Funds

A number of the programs have been quite successful in leveraging funds. That is, they have been able to use existing resources as a springboard to obtain additional funds and "piggyback" resources that, in toto, "buy" a lot more than additional dollars/resources could alone. Two examples illustrate the point. The Los Angeles program has been successful in leveraging funds and finding alternative resources for a variety of special programs addressing such issues as adult workplace literacy, services for disadvantaged and handicapped students, displaced workers, and provision of support services (e.g., the child care program described in the Support Services section of this report).

In the spring of 1990, JUMP completed a lengthy negotiation with NYSDOT for a new 2-year contract that will provide funding to support a number of initiatives. The monies will enable the program to hire the instructor on a year-round basis and allow him to make visits to trainees' worksites, to add structured preemployment services and employment-related workshops, to purchase a computer and add a 40-hour basic course in computer-assisted drafting, to provide a specialized 1-day first aid course for construction inspection trainees (a NICET requirement), and to design and implement a refresher course to prepare candidates for the NICET Level II exam.

Seed Money

One final topic of importance regarding funding for school to work programs is seed money or startup funding. Several programs described the critical role of startup funding in launching their efforts. Two sources of funding helped get the Portland Investment plan started. The first was Portland's selection as an Urban Network Project demonstration site supported by Federal funding. The second was a $50,000 9-month planning grant from the Edna McConnell Clark Foundation that allowed the Roundtable to convene four community-wide work groups of service providers, school personnel, parents, and others in 1985-86 to make recommendations that eventually became the goals and objectives of the Portland Investment plan. The work groups were structured around four age groups: prenatal to fifth grade; middle school, with a focus on beginning the school-to-work transition; high school, focusing on the transition; and out-of-school, ages 16 to 21, focusing on basic skills remediation, GED, and employment training. This work was essential to establishing definitions of the problem, specific needs, and recommendations. While the work of the Roundtable would have gone on without the funding from the first source, it would have been severely hampered without the second.

The St. Louis Work-Study program began more than 20 years ago when the Superintendent of Schools was highly instrumental in obtaining a grant from the St. Louis-based Danforth Foundation. This funding enabled the school district to pilot

the program in two companies and pay the students' wages during their work experience. Ralston Purina, one of the original companies, remains heavily involved in the program. However, the other company, Stix Baer Fuller, dropped out when the grant ceased to pay the students' wages. The Foundation also was invaluable in establishing linkages with the private sector to initiate the program.

JUMP began in 1969 through the efforts of several leaders in six engineering societies in New York City. The professional societies solicited firms to participate and also contributed seed money to support program startup costs. VFI helped to fund the program through a Federal grant under the Manpower Development and Training Act. One of the founders still is actively involved on the JUMP board.

The Louisville Partnership received $10,000 in seed money from the National Alliance of Business (NAB) when Louisville was selected as a demonstration site in a project to assist 12 cities develop partnerships to improve education, work preparation, and employment opportunities for young people. In addition to the overall benefits of participating in NAB's Compact Project, this money enabled key members of the "action team" to attend planning meetings held for Compact participants.

Career Advancement Programs

As illustrated in Exhibit 8A, there is no common approach among the various career advancement programs with regard to funding sources or amounts. One program, Genesis, is funded entirely with private funds; the dislocated worker program H.I.R.E., is almost entirely publicly funded; and the other three programs use a combination of public and private funding sources.

Genesis pays 100 percent of the tuition costs associated with professional educational programs for its trainees. Costs vary from training institution to institution, as each contract is separately negotiated. In Genesis Health Ventures' program with Holyoke Community College, the continuing education department operates as a business, with a balance sheet. They must operate "in the black," and must earn a profit or at least support their own operating expenses. As a result they have a business orientation and promote themselves as a business to business within the broader community. The Community College assists with small, in-kind services such as providing for the graduation luncheon and pins for the Nursing Assistant Specialists.

Crouse-Hinds' programs are funded through the company and through State economic development and education funds. While information on the total training budget was not provided, it appears that there are sufficient funds to enable any employee to sign up for any class and to ask for tutoring for the class. In fact, Crouse-Hinds

EXHIBIT 8A

PROGRAM FUNDING IN CAREER DEVELOPMENT PROGRAMS

Program	Program Funding/Sources	In-Kind Contributions	Cost Per Trainee
Crouse-Hinds/Cooper Industries	Total budget: over $800,000 Funding sources include CH, State economic development and education funds		
Genesis Health Ventures	Total budget: 100% financed by Genesis (no tax dollars) Cost varies from institution to institution Each contract is separately negotiated Educational institutions operate on a balance sheet (bottom line)	Colleges assist with graduation luncheons, certificates for graduation, and pins for position of Nursing Assistant Specialist Participants sign an agreement to work 4,000 hours after graduation (equivalent to 2 years at full-time status) to pay back the company's investment in their training	Nursing Assistant Specialist: $350-$400 per trainee Associate Degree in Nursing: in the several thousand dollar range
Illinois Prairie State 2000 Employer-based Program	Total budget: In FY 1990, the program disbursed about $1 million in grants to 60 employers, or about $16,700 per employer	The Economic Development Council for the Peoria Area serves as a broker and provides public relations, technical assistance, and program implementation services Management Association of Illinois serves both as broker and as a training provider	Grants to employers are restricted to 50 percent of training costs for existing employees only. During program's 1990 fiscal year, approximately 3,900 employees were trained at a total grant cost of about $1,000,000 for *grant cost* per participant of about $250. Employers also reported that their share of training costs, plus trainee wages, plus all other costs totalled about $8,000,000 for about $2,000 per participant in *employer costs* and about $2,250 per participant in *total costs*.

EXHIBIT 8A

PROGRAM FUNDING IN CAREER DEVELOPMENT PROGRAMS (CONTINUED)

Program	Program Funding/Sources	In-Kind Contributions	Cost Per Trainee
Indian-Meridian AVTC	Total budget: $100,000/year The companies and the State appear to be the primary funding source for training provided to participating companies The State contributes approximately $24,000 for one management development staff position Each participating company pays a $6,000 annual fee Local resources account for the balance	Employing organizations provide space for training, provide access to equipment, and allow supervisors to participate in planning, execution, and follow-up of training	Cost per trainee (duplicated)—$45; Cost per clock hour—$95; Cost per contract hour—$8; *Estimated* cost per trainee (unduplicated)—$118
Milwaukee H.I.R.E. Program	Total budget: Currently estimated at a little over $1 million, funded on an as-needed basis. Varies from year to year depending on need (i.e., the number of dislocated workers) Entirely funded, either directly or indirectly, through Federal grant monies, either JTPA or EDWAA. When indirect, Federal monies are routed through the Wisconsin State Department of Labor and the local Private Industry Council.	Significant in-kind contributions are provided by the United Way, including the time of the United Way staffer assigned to the HIRE center and many support services, particularly financial and personal counseling	Difficult to determine, but estimated *average* cost per slot is somewhere between $500 and $600.

will even pay for continuing education of two courses per semester for retired workers.

The Prairie State 2000 employer program, in fiscal year 1990, disbursed about $1 million in loans and grants to 60 employers, or about $16,500 per employer. The Economic Development Council for the Peoria Area serves as a broker and provides public relations, technical assistance, and program implementation services. Management Association of Illinois serves both as a broker and as a training provider.

There is no common approach among the various career advancement programs with regard to funding sources. Some are privately funded, some are publicly funded, and some exist using a combination of sources.

In Stillwater, the companies and the State appear to be the primary funding sources for training provided to participating companies. Each participating company pays a $6,000 annual fee. The State contributes approximately $24,000 for one management development staff person.

With the exception of infrequent private donations, the H.I.R.E. program is entirely funded, either directly or indirectly, through Federal grant monies, either JTPA or the Economic Dislocation and Worker Adjustment Assistance (EDWAA). The program is funded to a great extent on an as-needed basis, in response to a specific plant or company that is closing or laying off employees. The positive aspect of this is that the program is targeted to specific needs of specific companies and their employees. The training is designed with employer input, and so is very market responsive. The negative aspects of this are that funding is variable, unstable, and unpredictable year to year, making planning more difficult.

Technical Assistance

The need for technical assistance (TA) seems to be related to program maturity, longevity of the staff, funding sources, target population, and members of the partnership. The programs that have been in existence for a decade or more frequently have seasoned staff, as well as wide-ranging expertise in their board members and advisory groups. It appears that most of the technical assistance that older programs require can be obtained within the confederation of staff and partners. For example, the SICA vocational education program identified its TA needs as primarily related to incorporating new technologies and methods into the course so that the training remains state-of-the-art and competitive. These are needs that can be met within the system that supports the program. Crouse-Hinds indicated that their technical assistance needs, which relate to training development and delivery, are identified and addressed through the training manager's graduate work, contact

with the university doing research in learning, and through research reports and contacts with professional associations.

School-to-work programs whose funding sources require targeting of specific populations, and limiting spending in certain cost categories, face more complex barriers to accomplishing their mission. ANEW staff have received technical assistance from the State regarding case management, recruitment methods, and motivational techniques to use in working with disadvantaged individuals. However, they still need assistance in other areas, primarily administrative and fiscal, having to do with cash flow issues, performance-based contracting, dealing with the 10 percent limit on administrative time imposed by JTPA, and fundraising. Since ANEW has been funded solely by JTPA in recent years, and targets 60 percent minorities, 45 percent welfare recipients, and 25 percent high school dropouts, it probably faces more restrictions and has greater technical assistance needs in the fiscal area than programs with a range of funding sources.

Clearly the age of a program influences the extent and type of technical assistance required. Based on findings across all school-to-work programs, the technical assistance needs of new programs seem to be a need for information about the following:

- Program models;
- Developing a "business perspective";
- Establishing missions and goals; and
- Conflict resolution/negotiation.

As part of the NAB's Compact Project, the Louisville Partnership received valuable TA regarding the development of a mission statement and long-term, measurable goals and the development of a planning structure and action plans. Development of the curriculum occurred with the help of two recognized consultants in the field hired by the Partnership. Additionally, there seems to be a viable "brokering" role that a third party can play in helping potential partner organizations create linkage arrangements. This was certainly the case in St. Louis where the Danforth Foundation helped to establish linkages when the program was developing, and is, at least in part, the role that Prairie State 2000 plays.

Concern over the decline in basic skills and the work ethic found in the populations served was frequently mentioned at the study sites. In general terms, the long-range implications for technical assistance to programs serving at-risk students and marginally employed or unemployed adults loom large.

IMPLICATIONS/LESSONS LEARNED

Varied and ongoing promotional activities that are professional and carefully targeted are necessary to maintain support for, and involvement in, the program.

Promotional activities serve as both recruitment and retention mechanisms among program partners and participants. Outreach and promotion activities should focus on successful program outcomes and effectively use the program itself as a promotional tool to stimulate and maintain the involvement of all categories of participants. Publicity chosen to promote the program must be targeted to a specific group, whether it be the employers, the community, or the trainees. Community and government organizations, and to some extent, educators, are more apt to discuss their needs in terms of broader, social policies and goals, whereas the business participants and the individual employees/trainees look more specifically at how these programs will help their specific individual or organizational goals.

Regardless of the audience, materials and presentations should be professional and focus on the benefits of program involvement to the particular audience. Professionally presented advertising is essential to capture the interest and commitment of industry partners; to generate and sustain wide-based support for the program among trade, government, and community groups; and to create a positive impression for potential trainees.

Among trainees (especially the at-risk population) in the school-to-work programs, "success stories" from program graduates provide a model and incentive to stay with the program, despite personal difficulties that may jeopardize completion. Those who achieve their goals and complete the program become the program's best advertisement. Likewise, among employers, word-of-mouth advertising from business colleagues who have successfully used the program to meet short-term and/or long-term staffing needs induces other employees to enter and remain in the program.

Study information suggests that the training program itself can be an effective promotional tool to enhance the public reputation of the educational institution or employer who sponsors/conducts the program. Several partners have reported not only increased sales of services and products *because* of training, but also increased interest in working for the company as a direct result of the growing reputation of the training program.

Regardless of skill area, training must be work focused and organized into modules that are designed to meet the needs of trainees, whether they are at-risk youth or adult learners.

Success seems to be linked to work-focused training that includes large portions of hands-on and real-world, task-based assignments and materials in the classroom, laboratory, and job. The training links basic skills, work procedures, and employability skills together for continuing success in real jobs. Learning activities/lessons focus on demonstration and practice in which trainees learn by doing. Training uses more hands-on practice and less lecture than most schooling situations. Additionally, materials are packaged into units of manageable size that permit individual success and growth in skill levels and self-esteem. Working on assignments that are largely self-paced gives trainees the opportunity to become proficient in a task before moving on. Therefore, they develop a solid knowledge/skill base on which to build. Even the interaction pattern in successful learning environments usually models the work environment with supervisors/instructors and workers/trainees working, often in teams, to complete a production task/assignment that is often presented as a work order.

Success seems to be linked to work-focused training that includes large portions of hands-on and real-world, task-based assignments and materials.

Several other critical points about training also require mention. First, because the training is job and sometimes company specific and yet delivered through an educational institution, trainees come to recognize the relevance of education for work. Moreover, in the school-to-work programs, the effort to link attendance and grades to work opportunities and work performance also helps establish the link between education and work quality.

Second, dealing explicitly with the climate and expectations for behavior in work organizations is viewed as especially beneficial to at-risk students who may have had little exposure to similar situations in their previous experience.

Third, competency-based materials help establish appropriate expectations for everyone involved with the program. They not only deal with performance in explicit tasks, but also they provide for incremental learning and interim success, offer a way to track progress, lead to a certification of skills mastery, and help trainees accept responsibility for their own behavior.

Fourth, much of the learning work is performed in teams, similar to the situation that one finds on the job. The idea is to generate support and reinforce learning.

Trainees must be viewed holistically, so that all of their needs, barriers and strengths are taken into account.

There seems to be a trend in school-to-work programs toward treating trainee needs holistically. Many program participants are chronological adolescents or young

adults whose life circumstances cause them to have adult needs. Often, they do not have the necessary skills to make sound decisions and/or to get and keep a good job that has career potential. Therefore, successful programs seem to be trying to link not only school and work, but also social and support services into a continuum of opportunities for the trainee.

In arranging support services, programs should consider the importance of training logistics and staff attitudes.

Although the definition of support services varies significantly from program to program, there is some consistency across all program models. Training logistics function as an important support service. Flexibility in training design and scheduling to accommodate the real world and adult demands of trainees, together with task-focused, competency-based materials, the provision of tutors and/or mentors and, in the case of school-to-work programs, the use of individualized learning plans seem to facilitate individual progress and growth.

For at-risk youth and adults, the most basic support service may be the individual, personalized attention given to trainees in the programs. The caring attitude of the instructor was viewed as a highly critical success factor by many trainees. Further, often the instructor shouldered the role of arranging for individual referral to an appropriate community support agency for specific individual trainees.

Establishment of clear expectations and delineation of roles and responsibilities early in the program facilitate trainee success in school-to-work programs.

Development of a training plan or agreement establishes clear expectations for the participants. The educational institution, in "contracting" with the student, delineates specific, achievable, concrete objectives and outcomes, as well as expectations regarding student performance and behavior; further, with the "contract," the program agrees to provide an environment in which the student can work to achieve success, in exchange for the individual trainee upholding his or her responsibilities. This puts the relationship on a business-like footing that helps to orient the student to the adult world of work.

The model programs work to treat trainees as young adults and provide opportunity for continuing growth. The programs are, conceptually, separate from other parts of school, and offer trainees an opportunity for a fresh start. Program staff usually strive to establish more a work-oriented than school-oriented environment. The environment includes clear expectations and rules that are work-based, provides learning assignments that mimic the work environment, links assessment explicitly to stated performance criteria, provides feedback that is frequent and focused on

specific behavioral performance, and requires trainees to accept responsibility for their own behavior.

Competency-based assessment builds the trainee's sense of accomplishment and assures employers of the caliber of the prospective employee, and therefore of the program.

Assessment of trainees' performance, in meaningful terms, is a critical function in ensuring continued program operations and linkages among the partners. Competency-based testing is the common denominator in the model programs studied. Documentable improvements in basic skill levels and/or in employability and occupational skill levels build the student's sense of accomplishment and mastery (and thus support the goal to complete the course). Certification of competencies (and award of the diploma among secondary programs) provides employers with an assurance about the caliber of prospective entry-level employees. This assurance is strengthened when the business community, and others, are aware that the curriculum and testing methods of the program undergo periodic review and refining by advisory groups that include members of their own industry or trade.

Assessment of trainee's performance is a critical function in ensuring continued program operations and linkages among the partners.

Assessment of service providers' performance is obviously tied to trainee assessment practices. Ongoing assessment is vital to program success. Measurable aggregate outcome data on completion rates, competency levels, and entry into the workforce or postsecondary education or training are used to justify not only continuation of the program, but also to indicate improvements that are needed in program content or structure. Among postsecondary programs particularly, placement rates, starting wage, and retention rates are important. Without quantifiable outcomes that show the program is working (or at least is moving in the right direction), continued support from the partners will not be sustained.

Financial and in-kind contributions from the private sector are essential for ensuring a smooth startup and continued support for the program.

Program funding relies primarily on tax dollars that are redistributed mainly through Federal, State, and local education and employment and training funding sources. However, the contributions of industry are significant. These contributions take a wide variety of forms—cash, space, equipment, unsubsidized job slots, staff time to supervise students' work experience on OJT, recruitment of other employers, membership on the board or advisory group, presentations to students, practice

interviewing, instructor training, and so on. Clearly both public and private funding and in-kind contributions are required to initiate and sustain the program.

Training programs for career advancement must be designed and delivered with sensitivity to the learning needs of the adult learner.

Ideally, programs are developed with input both from the employer, who recognizes the necessity of accommodating the employee participants' need for flexible scheduling and pace, and from a community college or other institution with considerable expertise in providing education services to adults. Instructors must recognize that many adults are uncomfortable returning to the classroom and must develop an atmosphere that is nonthreatening. They must also understand that background and experience vary greatly from trainee to trainee, and have the ability to work with each student at his or her level of understanding.

The use of a formal career ladder mechanism in career advancement programs may help to legitimize the program within the company and to offer an attractive incentive to participating employees.

A recognized career progression gives employees the opportunity to plan their professional growth within a company and therefore has the "side effect" of developing employee loyalty to and pride in the organization. Other side effects are the development of a working team approach and the fostering of the perception, in the broader community, that the company has—and values—a quality workforce.

Summary of Lessons Learned From Program Operations

- Varied and ongoing promotional activities that are professional and carefully targeted are necessary to maintain support for, and involvement in, the program.
- Regardless of skill area, training must be work focused and organized into modules that are designed to meet the needs of trainees, be they at-risk youth or adult learners.
- In arranging support services, programs should consider the importance of training logistics and staff attitudes.
- Establishment of clear expectations and delineation of roles and responsibilities early in the program facilitate trainee success in school-to-work programs.
- Trainees must be viewed holistically, so that all of their needs, barriers and strengths are taken into account.
- Competency-based assessment builds the trainee's sense of accomplishment and assures employers of the caliber of the prospective employee, and therefore of the program.
- Financial and in-kind contributions from the private sector are essential for ensuring a smooth startup and continued support for the program.
- Training programs for career advancement must be designed and delivered with sensitivity to the learning needs of the adult learner.
- The use of a formal career ladder mechanism in career advancement programs may help to legitimize the program within the company and to offer an attractive incentive to participating employees.

4. Factors Affecting Successful Program Operations

Incentives and rewards are opposite sides of the same coin. Incentives answer the question, "What can I or my organization expect to derive as a result of participating in the program?" Rewards, on the other hand, answer the question, "What did I or my organization receive as a result of participating in the program?"

The incentives and rewards for each category of participants—industry partners, educational institution partners, individual participants, and community and government agency partners—in the programs studied are displayed in several exhibits found in this chapter. There is a great deal of consistency in factors identified as incentives or rewards within each category of participants and within the two program types—career advancement and school-to-work. However, based on the differences in program focus, there is little consistency *across* program type.

Incentives in School-to-Work Programs

Trainee Incentives

Turning first to the issue of incentives, as displayed in Exhibit 9, there is great similarity in the expectations held by members of the same participant group in the school-to-work programs. For example, when examining factors that encouraged the trainee's participation in secondary-level programs, three are mentioned consistently: opportunity for a change, opportunity to earn while learning, and entry into the labor market.

The opportunity for a change seems especially important for participants who have been considered at risk of dropping out or whose experience in school has been negative. Because the model programs meet in separate facilities, use different instructors, and/or operate in ways that mimic or model the actual work situation, trainees do not necessarily bring their history with them to the program. They recognize that a "bad reputation" will not follow them to the program or to the workplace, unless they choose to make it so. "A fresh start after screwing up" is the way one trainee expressed it. "A last chance" is the way another trainee expressed his feelings after being referred into the program by the court system. Others said they were bored with school and the program provided a new and exciting atmosphere.

Earning while learning and early entry into the labor market are also important reasons for trainee participation. The training programs enable participants to have

EXHIBIT 9

INCENTIVES IN SCHOOL-TO-WORK PROGRAMS

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Huntsville School-to-Apprenticeship	a) Expand pool of entry level workers who have appropriate work skills and good attitudes b) Reduced labor costs	a) Solidify cooperation with business Advisory Committee members b) Continue involvement in school-to-work	a) Promote economic growth	a) Earn and learn at the same time b) Learn a skilled craft c) Entry into workforce
Los Angeles Adult Regional and Skills Center Program	a) Workers quickly trained at appropriate skill level b) Expand pool of workers who have appropriate work skills and attitudes c) Improve literacy abilities of labor force d) Augment workforce/quick placement	a) Provide services to expanded community b) Improve image in community c) Reduce dropout rate	a) Expand labor pool to promote economic growth b) Acculturation to U.S. life/work c) Assistance with civic programs	a) Entry into workforce b) Quick turnaround c) Convenient schedule
Louisville Partnership	a) Expand pool of entry level workers who have appropriate work skills and good attitudes b) Augment workforce/quick placement	a) Improve attendance b) Improve grades c) Reduce dropout rate	a) Improve employability of target population	a) Entry into workforce b) Earn and learn at the same time
Philadelphia High School Academies	a) Expand pool of entry level workers who have appropriate work skills and good attitudes b) Good public relations	a) Reduce dropout rate b) Improve attendance	a) Increase service to underserved population b) Improve employability of target population	a) New start in school b) Work toward job and graduation c) Earn money and learn at the same time
Portland Investment	a) Expand pool of entry level workers who have appropriate work skills and good attitudes	a) Reduce dropout rate	a) Improve employability of target population b) Reduce potential public dependency in target population	a) Alternative school experience

EXHIBIT 9

INCENTIVES IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Project COFFEE	a) Expand pool of entry level workers who have appropriate work skills and good attitudes b) Augment workforce c) Prepare more computer literate population	a) Reduce dropout rate b) Find successful alternatives for "at risk" students c) Improve image in the community d) Improve attendance e) Improve participant skills	a) Opportunity to mold better citizens b) Improve employability of target population	a) A new start in a different school b) Opportunity to graduate with class c) Earn and learn at the same time
St. Louis Off-Campus Work-Study	a) Expand pool of entry level workers who have appropriate work skills and good attitudes b) Screen/preview trainees as potential employees c) Augment workforce d) Reduce labor costs	a) Reduce dropout rate	a) Improve employability of target population b) Opportunity to mold better citizens	a) Alternative school experience b) Entry into workforce c) Earn and learn at the same time d) Build confidence
ANEW	a) Employees who have craft skills and good attitudes b) Meet affirmative action goals	a) Provide service b) Expand program c) Improve image in the community	a) Reduce potential or continuing public dependency in target population	a) Develop skills b) Entry into a permanent, skilled job with good pay
JUMP	a) Meet legal stipulations on contracts b) Expand pool of entry level workers who have appropriate work skills and good attitudes	a) Provide training for minority youth to enter engineering field	a) Incorporate at-risk youth/ women/ minorities into engineering field b) Reduce potential public dependency in target population	a) Develop skills b) Entry into a permanent, skilled job with good pay
SICA	a) Ensure a skilled labor pool to meet growing employment demand b) Augment workforce/quick placement	a) Serve skill training needs of students and employers b) Operate food services of school	a) Facilitate expansion of industry	a) Develop skills b) Entry into a permanent, skilled job with good pay

economic viability while they continue in school; contributing to individual or family incomes no longer is in direct opposition to graduation. Because the school program actually helps them find work (most model programs include placement), the programs provide not only for immediate income, but also for continuing work.

Another incentive noted by trainees in several programs is scheduling convenience. For example, in the Cooperative Federation for Educational Experiences (Project COFFEE) and in the Los Angeles Adult Regional and Skill Center program, training opportunities are provided either on a flexible schedule with individualized instruction, or throughout a 15-hour day and weekend schedule. Flexible scheduling offers students who have family or court responsibilities, or other mitigating circumstances that prevent attendance during regular school hours, an opportunity to pursue their educational goals.

For trainees in postsecondary programs, the most consistently stated incentive was "an opportunity to gain skills for a permanent, good-paying job." These trainees seem to have a better idea of the type of job they want, with more detailed reasons for choosing the program than simply desiring entry into the workforce, which was often the reason trainees at the secondary level gave.

A factor attracting participants in several of the career advancement projects is the possibility of obtaining college-level education and acquisition of specific work skills. Further, these individuals believe that the new training will improve their careers, or in the worst case scenario, help them find new jobs.

Educational Institution Incentives

Staff of secondary level educational institutions indicated that preventing students from dropping out of school was the primary reason for participation in the partnership. Sometimes this incentive is broadened to include improving or increasing attendance. In postsecondary programs, incentives include providing a greater service to the community, increasing student enrollment in the school, and serving the needs of local employers.

Keeping students in school through graduation is, in very simplified terms, the mission of the public schools. Therefore, an incentive to participate in a program would naturally be the promise of a vehicle to help achieve that mission. School administrators and program operators expressed genuine desire to help students, especially at-risk students, succeed in school. And the model school-to-work programs offer a vehicle to do precisely that. Equally important, however, is the schools' recognition that their economic viability is often based on average daily attendance or other types of enrollment and attendance figures. Therefore, it is in their best interest, operating within the "business model" that many of these programs

use, to maximize attendance in order to maximize economic return while providing services.

At the postsecondary level, an incentive to participate is the opportunity to expand the program and provide service to employers in the community. Realistically, program administrators recognize that their continued viability is based on their operating programs that employers are willing to support, especially by providing jobs for program participants. In particular, the postsecondary partners are aware of the benefits to the institution's reputation and image that could be derived from participation.

Employer Incentives

The primary incentive for industry partners is the prospect of contributing to the production of a pool of well-trained workers available for entry-level positions. Sometimes this translates to training students for a specific company, such as the St. Louis Off-Campus Program in which scores of trainees have continued as full-time employees in the companies where they received on-the-job training (OJT). Sometimes, however, participation has no direct employment relevance for a partner company, such as Project COFFEE in which Digital Equipment Corporation is a primary partner, yet has no facilities in the school districts served by the project. Still, in both situations, employer partners recognize that a commitment to creating a more able pool of workers in the entire geographic area is beneficial to their company, because they recognize that what is good for the regional economy also is good for their business.

The primary incentive for industry partners is the prospect of contributing to the production of a pool of well-trained workers available for entry-level positions.

Other incentives discussed by employers include the recruitment and screening of employees for their own labor force. Several model programs operate in ways that provide employers an opportunity to train potential employees in company-specific techniques and to screen trainees over a long period to determine suitability for employment. For example, St. Louis Off-Campus Work/Study Program, the Southeast Institute of Culinary Arts Program (SICA), and the Louisville Partnership offer employers an opportunity to evaluate potential employees in the work setting, either during the entire school year or in summer jobs.

Another factor that some employers mentioned as an incentive to participate in the program is to augment their work force. Augmentation occurs when partner companies find themselves short-staffed due to hiring freezes, early retirements, vacations, or sickness, and trainees step in and assume more responsibility on a short-term basis. In particular, the St. Louis Work/Study Program and SICA have

functioned in this capacity. In other programs, augmentation occurs because participants in work/study arrangements provide relatively inexpensive labor and contribute to the productivity of the company as the initial learning curve is mastered. Many employers also have come to view the program as a quick and reliable source of skilled labor and call the program first when looking to fill a position.

An incentive to some employers is the potential that the program provides to meet contractual and legal obligations regarding affirmative action and equal employment. For example, the Apprenticeship and Nontraditional Employment for Women (ANEW) program got its initial boost because it enabled employers to meet affirmative action goals with respect to hiring women and minorities in construction trades. The Joint Urban Manpower Program (JUMP) provides an opportunity for employers in the engineering field to meet New York State affirmative action requirements when using Federal funds in highway improvement contracts.

Trade, Government, and Community Group Incentives

The incentives for many community organizations or government agencies seem to fall into two categories. First, staff in many participating organizations want to increase the employability of "forgotten," neglected, disadvantaged, or underserved populations within the community. That motivation benefits the community as well as the agencies involved. By providing training through the particular program, the partner organizations have an opportunity both to facilitate individual growth and mobility *and* to hasten trainee incorporation into the workforce and tax cycles of the community. Therefore, the program is viewed as a strategy to produce good citizens, with valuable work skills, who will become taxpayers. By achieving this outcome, the program reduces the potential (or actual) public liability of disadvantaged individuals who require long-term public support. For example, ANEW targets trainees who are receiving public support at the beginning of training, with the expectation that they will be self-sufficient as a result of the training.

A second reason several organizations choose to participate in the model programs is an opportunity to encourage the growth of area business. For example, the Huntsville School-to-Apprenticeship program, the Los Angeles Adult Skills Center Program, and SICA perceive themselves as contributing to the economic development of the region as well as to the economic well-being of the individual trainees.

REWARDS IN SCHOOL-TO-WORK PROGRAMS

Trainee Rewards

Similarity is found across programs and participant categories regarding the perception of reward for participation, as can be seen by examing the information in

Exhibit 10. Discussions with trainees in every program revealed that jobs and job opportunities are their reward for participation. Further, many of the jobs are permanent, skilled positions and provide a very good wage. In the postsecondary programs the typical wage for starting positions ranges from about $7.50 to $10 an hour.

Another reward identified by most trainees is that they have gained self-esteem and self-confidence as a result of participating in the program. Not only have they learned job skills, they also have achieved a level of success unknown in their previous school experiences.

Other outcomes for trainees include improving grades, establishing contacts in the local job market, and receiving assistance in developing their own life and career decisions. A number of trainees indicated that the personal attention received from program staff was the first constructive attention they had received in a school setting.

Educational Institution Rewards

For educational institution partners, the rewards or outcomes also have been similar across programs. Most report considerably improved attendance and decreased dropout rates. For example, the Louisville Education Employment Partnership has a dropout rate of 1.1 percent, less than half that of the regular school system. Their figures also show that school attendance of trainees increased by 17 percent. Attendance rates for the program participants also exceed attendance rates for the rest of the school system. The Philadelphia High School Academy (PHSA) reports attendance at over 90 percent and a dropout rate reduced to less than 10 percent for trainees, as opposed to a dropout rate in excess of 40 percent for the target population. Project COFFEE reports that attendance for participants increased from about 40 percent of possible days before enrolling in the program to 90 percent of possible days during participation. They also have an increase in graduation rates to a level exceeding 85 percent of all participants.

A second major reward for the educational institutions seems to be placement rates, that is, students who become gainfully employed as a direct result of the training. The data in Exhibit 10 illustrate these rates for most programs. The numbers are impressive and range from an employment rate of about 70 percent in Project COFFEE to 92 percent in SICA.

Employer Rewards

The rewards derived by employers also are very similar across programs. Many employers recognized an increase in the general skill level of the pool of employees

EXHIBIT 10

REWARDS IN SCHOOL-TO-WORK PROGRAMS

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Huntsville School-to-Apprenticeship	a) 50% of trainees continue apprenticeships	a) Over 95% of participants graduate	a) Continuing association of program and business	a) Beginning apprentices earn at least $5.00 per hour
Los Angeles Adult Regional and Skills Center Program	a) Expanded entry level labor pool b) Rapid replacement/expansion of labor force c) Augmented workforce/quick placement d) Trainees have become employees	a) Continuing expansion in numbers of adults served b) Continuing growth of image and prestige in community c) 80% placement rate d) Reduce dropouts by 40% within at-risk population	a) Continuing expansion of services to target populations b) Continuing assistance with community projects	a) Skills that lead directly to job b) Inexpensive/selective training/placement
Louisville Partnership	a) Rapid replacement/expansion of labor force	a) Dropout rate of 1.1%, less than half of regular school b) Academic gains in English and math of .1 point c) Attendance increased by 17% among participants d) Placement rate of 99%	a) At-risk students are staying in school b) Participants are becoming better citizens	a) Jobs and potential for continuing full-time work upon graduation
Philadelphia High School Academies	a) Trainees have become employees b) Trainees have supplemented the regional workforce	a) Improved attendance to over 90% b) Reduced dropout rate to less than 10% c) Achieved post graduation placement rates of over 85%	a) Significant number of minority individuals hired	a) Improved grades b) Job opportunities c) Gains in self-confidence d) Contacts in business

EXHIBIT 10

REWARDS IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Portland Investment		a) Reduced dropout rate b) Increased academic achievement levels c) Increased parental involvement	a) Reduced potential for at-risk youth to become public welfare recipients b) Improved service coordination	a) Gains in self-confidence
Project COFFEE	a) Trainees have become employees b) Trainees have supplemented regional workforce c) Trainees are comfortable with idea of computerized solutions to problems	a) Improved attendance from 40% to 90% b) Reduced dropout and increased graduation rates c) Employment rate of graduates of 70%; 50% of graduates find jobs in areas of training d) Gains in academic and vocational rehabilitation	a) Reduced potential for at-risk youth to become public welfare recipients b) Increased tax base	a) Job opportunities b) Improved work and academic skills c) Gains in self-confidence
St. Louis Off-Campus Work-Study	a) Trainees have become employees b) Trainees have supplemented the regional workforce	a) Dropout rate of less than 5% b) Improved attendance c) Placement rates of 75-80% and continuing education rates of 15-20%	a) Served over 3,000 students	a) Earn at least minimum wage b) Entry level hands-on skills training c) Combine credit for and experience with work at a real job with opportunity to graduate d) Gains in self-confidence e) Consideration of career decisions f) Personalized support g) Improved grades

EXHIBIT 10

REWARDS IN SCHOOL-TO-WORK PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
ANEW	a) Well skilled employees, 63% of whom remain on the job	a) Completion rate of 75% b) Placement rate of 71%	a) Substantial increase in tax base and decrease of public dependency among clients	a) Permanent jobs, range of starting wages from $8.00-$9.00 per hour
JUMP	a) 72% of 225 graduates since 1980 remain in field, many with original firms	a) Over 500 participants have been trained and placed since 1969	a) Substantial increase in tax base	a) Permanent jobs, range of starting wages from $7.50-$10.00 per hour
SICA	a) Rapid replacement/expansion of labor force b) Trainees and equipment have supplemented the labor force	a) Enhanced national reputation of school b) 92% of enrolled students have taken higher than entry-level jobs upon leaving program	a) Industry continues to expand and hire directly from SICA	a) Job opportunities at higher than entry level

available for entry-level positions as well as improved skills among trainees hired into full-time positions at the end of the program. For example, in the St. Louis Off-Campus Work/Study Program, scores of trainees have become, and remain, full-time employees of employer partners. In Louisville, some employers will hire only program participants or graduates. In the Huntsville School-to-Apprenticeship Program, 50 percent of the trainees have continued as apprentices and journeymen with the companies in which they began their original apprenticeship. In ANEW, over the entire course of the project, 63 percent of the program graduates remained on the job with their initial placement. Similarly, for JUMP, a 1989 followup survey found that 72 percent of the graduates since 1980 have remained in the field, many of them with their original employers.

Trade, Government, and Community Group Rewards

The rewards for community organizations and government agency partners involved in the program are less quantifiable. However, partner organizations share the belief that there has been an increase in the tax base as a result of program participants going to work. The placement rates for the programs would support that conclusion. Further, community and government partners believe that, as a result of trainees going to work, paying taxes, and staying on the job, the programs have helped produce better citizens for the community, with the result that the potential for these at-risk students to become public welfare recipients is considerably reduced. Unfortunately, calculations to determine the net value gain of the programs have not been conducted as part of the evaluation process in any of the programs studied.

INCENTIVES IN CAREER ADVANCEMENT PROGRAMS

Trainee Incentives

As can be seen in Exhibit 9A, a number of the individual participants in the Genesis and Crouse-Hinds training programs were attracted by the prestige of participating in a college education and the prospect of experiencing success in a college setting. Of importance to their continuing participation is the program's flexible schedule that enables them to hold down their jobs and take care of their family needs. They view their new skills, their ability to keep current with new technology, and their overall marketability as factors that will help them advance within their own companies, are viewed favorably by management, and, in the worst case scenario, will help them attain new jobs if their current jobs end. All of these serve as substantial inducements to participation in the training programs.

EXHIBIT 9A

INCENTIVES
CAREER ADVANCEMENT PROGRAMS

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Crouse-Hinds/Cooper Industries	a) Classes designed to meet needs of managers and employees b) Opportunity to screen instructors before assignment to training site c) Input into training design and instructional methodology d) Help in locating State funding for training e) Ability to keep up with technological changes	a) Fulfills mission to serve the business/industry needs of the community		a) Help in meeting State requirements for certain degree programs at OCC b) Ability to keep up with technological changes c) Meet own growth and development needs d) Student-paced classes e) Training would help workers find other jobs if their current jobs ended
Genesis Health Ventures	a) Ensure a skilled labor pool to meet growing employment demand b) Provide employee development c) Offer new ideas d) Obtain space, support services, recordkeeping, prestige of a "college-based" program e) Improve services f) Reduce attrition rates g) Retain valued employees h) Improve industry image	a) Expanded base of operation b) Some leveraging of funds to extend staff and space resources c) Rental revenues for use of facilities d) Offers new ideas e) Money to pay for the program (100%) (recruitment, promotion, and selection) f) Administrative support for the program g) People to be in the program h) Promotion within the business community	a) No tax dollars support the program b) Employer reaches out to community to find participants c) Improved image of nursing home industry	a) Prestige of participating in a college education b) Evidence of success—college certification c) A career ladder training program d) Flexible schedule enables participants on different shifts to attend e) Improve individual/ professional skills f) Monetary awards through advancement

EXHIBIT 9A

INCENTIVES
CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Illinois Prairie State 2000 Employer-based Program	a) Program addresses technological change and productivity/ quality improvement needs b) Companies remain competitive and profitable through efficient, productive workers c) Receive services tailored to needs, partial reimbursement for the cost of services	a) Community colleges have the capability to act as both brokers and training providers b) The Management Association of Illinois does act as a broker and training provider and gains both prestige with its members and enhanced training capabilities	a) Help Illinois companies improve productivity, profitability, and product quality to enhance ability to compete, survive, and keep jobs in State	a) Enhanced personal and professional skills b) Viewed favorably by corporate management
Indian-Meridian AVTC	a) Well-trained labor force b) Training reimbursement by State c) Participation in the CEO Network	a) High interaction with trainees and their companies b) Increased funding and prestige for the sponsor c) Good support from local business, both direct financial support and support in raising revenue through taxes	a) Attract employers to Stillwater area (local) b) Attract employers to Oklahoma (State)	a) Enhanced personal and professional skills b) Viewed favorably by corporate management

EXHIBIT 9A

INCENTIVES
CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Milwaukee H.I.R.E. Program	a) Retraining and reemployment of dislocated workers b) Skills upgrading c) Development of older, experienced, and reliable workforce with strong work ethic	a) Meet needs of employers and employees during downswings, layoffs, plant closings, etc. in the industrial/manufacturing sector	a) Healthy business climate b) Lower unemployment c) Reduced reliance on social and welfare services	a) Reemployment at 70-80% of previous wage level b) Assistance in assessing skills, upgrading or retraining c) Placement services to reenter the workforce d) Support services for trainees and families e) Reduced feelings of stress, tension, anxiety, depression, and loneliness

Educational Institution Incentives

The educational institutions, particularly community colleges, participate in the programs to do the following:

- Expand their base of operations;
- Enhance their staff, their capacities, and their programs generally;
- Keep current with industry practices and new technology; and
- Fulfill their mission to serve the business and industry needs of the community.

The administrations also believe that participation in the training programs enhances the prestige of the institution in the community and often enhances the support (financial and otherwise) received from the private sector.

Employer Incentives

In the career advancement programs, the employers are clear and unanimous in their expectations from the programs. They expect the programs to ensure a skilled labor pool that can meet their employment needs and adapt to changes in the workplace such as new technology, procedures, and methods. They hope to improve productivity, service to their customers, and their overall competitiveness. One important incentive is the opportunity to design training classes specifically tailored to their needs. Another is the prospect of having lower attrition and turnover rates as employees' skills are upgraded and their talents can be redeployed within the company. They also recognize that the training represents a valuable human resource management tool, helping to keep employees challenged, motivated, efficient, and productive. For some employers, the opportunity to get reimbursement from the State for training costs is an incentive.

Participating employers in the career advancement programs anticipate access to a skilled labor pool which will improve their productivity, customer service, and overall competitiveness.

Trade, Government, and Community Group Incentives

The community and government partners discussed their motivation to participate in terms of not having to rely solely in most cases on tax dollars for the programs. They perceive benefits related to lower unemployment rates and reduced reliance of trainees on social and welfare services. In addition, the availability of training

programs provides a healthier business climate in the community and help attract good employers with good jobs to the State and the community.

Rewards in Career Advancement Programs

Trainee Rewards

The individual participants are able to realize some progression within their careers and within their companies, with accompanying salary increases (see Exhibit 10A). Many report an improvement in their self-image and their self-confidence as they are taken more seriously by their colleagues and earn more respect for their improved or new skills. Some receive course credits or degrees in new or more advanced areas. The bottom line for the participants is improved job skills, performance, teamwork, morale, corporate spirit, and marketability.

Educational Institution Rewards

The educational institutions providing some or all of the career advancement training also articulate the benefits of participation as enhanced reputation within the community, increased opportunities to provide training to other institutions in the area, greater capacity to fulfill their community economic development mission, and greater staff and institutional capacity to broaden the scope and range of services provided. Some respondents specifically noted such rewards as endowed chair and donations of equipment, materials, tools, and financial or other in-kind contributions.

Employer Rewards

Employers described the rewards they derived through participation in career advancement programs similarly—and enthusiastically—across programs. Some specific rewards mentioned are as follows:

- A "return on investment," such as a drastically reduced employee turnover rate, represents a significant savings in classified advertising costs and re-training expenses. Genesis reports that 93 percent of the graduates of its training program are still employed by the company. The usual turnover rate for this category of employer is about 60 percent;

- The ability to attract high-quality employees who pursue career paths and training opportunities;

- The ability to develop an experienced, seasoned, and reliable workforce with a strong work ethic;

EXHIBIT 10A

REWARDS IN CAREER ADVANCEMENT PROGRAMS

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Crouse-Hinds/Cooper Industries	a) Receives low cost training on-site b) Designed around specific roles of the company	a) Fulfill part of college's mission b) Public relations c) Help faculty stay current with new technologies and machinery d) Endowed chair ($40,000) from the local manufacturers' association e) Donations from industry of materials, equipment, tools, etc. f) Two scholarships for mechanical technicians paid for by Crouse-Hinds		a) Receive 30 credits for being a journeyman in the 2-year program b) Learn more advanced skills c) Apply new skills d) Increased earning potential e) Improved employment opportunities and security
Genesis Health Ventures	a) 98% of the graduates (406 out of 438) are still employed by GHV (typical turnover rate is 60%) b) High $ return on investment c) Recruitment of new employees made easier through attraction to career paths and advancement opportunities d) Increased occupancy rate in facilities (from 94 to 97%) due to more efficient and meaningful services e) New team spirit within the organization	a) Enhanced reputation within community b) Increased opportunities to provide training to other industries in area	a) Individuals needing health care services will get more effective and efficient care b) More can return home c) More can avoid hospitalization	a) Graduates who continue working for company receive a $2,000/yr salary increase b) Progression up a career ladder with commensurate increases in salaries and responsibilities c) Advancement in current jobs or advancement to higher level on career ladder d) Increased opportunity for input and more credibility with the care team e) Improved self-esteem and confidence f) Personal growth

EXHIBIT 10A

REWARDS IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Illinois Prairie State 2000 Employer-based Program	a) Awareness of public sources of funding available for training and education, and assistance with the eligibility criteria and procedures required to apply for funding. Awareness of the broad range of training and education services available b) Increases in productivity and competitiveness. Improved communication patterns, a higher level of employee involvement and better problem solving capabilities. Improved efficiency and effectiveness c) Awareness of current thinking in management and organizational theory d) Awareness of a key State/local resource relevant to the employer's staffing	a) The Management Association of Illinois and four community colleges are the only organizations providing training to multiple employers/grant recipients The Association has enhanced its reputation with its members based upon the range and quality of services provided The community colleges have enhanced their image with local employers as practical training providers and have fulfilled their economic development mission by working with State grant funds to assist local businesses	a) Improved business climate in Illinois	a) Remediation of basic skill deficiencies b) Enhanced vocational/ occupational skills (or better managers and supervisors, and bosses) c) Ability to keep pace with office automation and technological changes d) Assistance in overcoming language barriers

EXHIBIT 10A

REWARDS IN CAREER ADVANCEMENT PROGRAMS (CONTINUED)

Program	Employer/ Industry	Educational Institutions	Community/ Government	Individual Participant
Indian-Meridian AVTC	a) Increased productivity of local plants (for example, after initial training, within 3 years, Mercury Marine's Stillwater plant advanced from the least productive to the most productive of Mercury Marine's plants) b) Culture change through team building efforts c) Responsiveness from sponsor to customize the training to fit local circumstances d) Value for the money for training e) CEO network—enhanced communication at top level f) Improved product quality, productivity and competitiveness	a) Improved industry-education linkages b) Improved funding, spacious well-equipped facility c) Enhanced prestige—the sponsor's superintendent was invited to join the Board of Directors of one locally owned major employer d) Enhanced reputation of the sponsor beyond the local area	a) Community prestige derived from guest lectures by top management and organization experts b) More businesses were attracted to the area, in part due to the program	a) Improved job skills b) Improved performance c) Improved marketability d) Improved corporate spirit
Milwaukee H.I.R.E. Program	a) Dependable, well-trained employees with strong work ethics b) Assistance in times of layoffs, downsizing, or plant closings c) Help in applicant screening when making new hires	a) Improved linkage to business and industry	a) Linkages between economic development, job training, education, and social services	a) Marketable skills b) Employment/reemployment c) Remediation of low basic skill level d) Self-esteem and self-confidence e) 73% average reemployment rate f) Average reemployment wage level is 93% of prelayoff wage level

- Low-cost training, provided onsite, and specially tailored to their own individual company's needs;
- Increased corporate productivity and competitiveness;
- Improved communication patterns, a higher level of employee involvement, and better problem-solving capabilities that lead to improved efficiency and effectiveness;
- An enhanced awareness of current thinking in management and organizational theory;
- An enhanced awareness of public sources of funding, eligibility criteria, and application procedures—some were able to obtain partial subsidization of training costs from government funding sources, which enabled them to provide training that they otherwise could not afford;
- Greater awareness of the broad range of training and educational services available, enabling them to choose those opportunities best suited to their needs and budgets; and
- The ability to bring about total, top to bottom, cultural change within the organization (e.g., employers participating in the Prairie State 2000 training use their career advancement training programs to help them reorganize their production processes and give their employees a fresh perspective upon themselves, their coworkers, their company, and its competitors).

One striking example of benefits derived from program participation is found in Stillwater, Oklahoma:

> "By 1980, the Stillwater plant still had the lowest productivity of all Mercury Marine's plants and was in jeopardy of being closed. At that point, the plant manager was summarily dismissed and a new plant manager was assigned. The new plant manager had a strong training orientation and worked closely with the AVTC to expand the training offered to workers. The initial wave of training focused upon traditional metal manufacturing skills, management/supervisory training, and office automation. Within three years, the Stillwater plant had moved from the least productive to the most productive of Mercury Marine's plants.

> Following up on that success of the early 1980s, the company and the AVTC embarked on a new round of training. This second round of training emphasized new manufacturing techniques such as statistical process control (SPC), geometric tolerance (GT), and a computerized numerical control (CNC) which were designed to increase productivity and improve product quality. During this same mid-1980s time frame, several other companies opened new plants or relocated existing facilities in the Stillwater area."

Trade, Government, and Community Group Rewards

The trade, government, and community group participants believe that the industry-education linkages provide an improved business climate in their State or region and enhance their community's prestige. Some indicate that the training programs attract more businesses to the area, improving their region's economic vitality.

IMPLICATIONS/LESSONS LEARNED

The link between school and work must be very clearly perceived by the trainees and the partner organizations in school-to-work programs.

For school-to-work programs to succeed, the training experience must be directly related to the job, and the trainees must attend school to get and keep the job. Trainees must work at the job to graduate and must graduate to continue to work. Effective training is realistic and linked to real jobs. Thus, the programs answer the call for relevance of education to work, an element that seems to be missing from much of secondary and postsecondary education in the United States. Attendance and placement figures, as well as the continuing participation of the partner organizations, suggest that individual participants *want* to stay in school when the training offered at school and when attendance in school allows them to get a job. Furthermore, the data suggest that linking school to work is an incentive for all trainees, regardless of the target population.

For school-to-work programs to succeed, the training experience must be directly related to the job, and the trainees must attend school to get and keep the job.

The partners all need to know and understand the bottom line results that they can expect from participating in the partnership, and how those results relate to their own organizational goals.

For employers, this lesson means they need to know the effects on people, productivity, and profitability, and understand the link between training and total productivity. In school-to-work programs it means a shortened learning curve and appropriate work attitudes for trainees. In career advancement programs, it means cost savings when existing workers are redeployed rather than replaced. For educational institutions, the lesson means they need to know the effects on attendance, performance, completion/graduation, and the benefit to the image of the institution. For community organizations, the lesson means they need to know how the program affects the tax base, the economic environment, and the image of the region.

To address these issues within any program, some type of evaluation component is needed. The questions must address issues of concern to the partners: What skills are learned? Does the training help employees keep up with new technology and new ways of organizing work? How effective is the application of the training once the employee is back at the workplace?

> **Partnerships are facilitated when they focus on service goals that crystallize the program mission as well as support the mission of each partner organization.**

The data suggest that a close correspondence between expectations and outcomes facilitates partnerships. When that correspondence exists, organizations seem willing to build and continue relationships in order to meet their own needs and the needs of others. In addition, favorable quantitative outcome data actually facilitate partnerships by providing a tangible "report card" or results to which every partner organization can relate.

Summary of Lessons Learned Regarding Success Factors

- The link between school and work must be very clearly perceived by the trainees and the partner organizations in school-to-work programs.
- The partners all need to know and understand the bottom line results that they can expect from participating in the partnership, and how those results relate to their own organizational goals.
- Partnerships are facilitated when they focus on service goals that crystallize the program mission as well as supports the mission of each partner organization.

Problems or Barriers in Operation and Strategies for Resolution

Each partnership encountered certain barriers during the life cycle of partnership development and program implementation. Likewise, each was able to overcome these barriers sufficiently to operate the program successfully. In each case, strategies were initiated that facilitated progress. It is important to analyze the factors that acted as barriers and the strategies used to facilitate the development of productive linkages in order to help others who may attempt similar ventures.

Of course, it is often difficult to identify barriers to success in programs that are successful, because these partners tend to concentrate on positive features and tend to overcome problems almost instinctively. This seems to be due to adept leadership and management and a positive "can-do" attitude.

Six categories of barriers were reported with consistency across the model programs: size inefficiencies, cult of personality, lack of information, demographic/economic changes, turf conflicts, and resources. These barriers and the tactics the partners are using to address these issues are discussed in the following text.

Size Inefficiencies

Several programs reported that the small size of their school or company posed a problem for starting or continuing their partnership. For example, Project COFFEE officials indicated that, as a single, rural school system, they initially brought limited resources of dollars and numbers of students to the training effort, thus restricting the services they could provide. The strategy COFFEE adopted to deal with the issue was to reorganize. That is, they formed a consortium of school systems so they could provide services in return for a fee that serves as income for the program. Likewise, they work with employers, local governments, and social service agencies throughout western Massachusetts to broaden the support and resource base for the program.

The strategy of forming regional associations of potential partners has been used to overcome small size problems in several of the studied programs.

The strategy of forming regional associations of potential partners has been used effectively to overcome small size problems in several of the studied programs, including Milwaukee H.I.R.E., Portland Investment (PI), Louisville Partnership, St. Louis Work Study, SICA, and Los Angeles. However, officials in these programs caution that difficulty in incorporating large numbers of organizations into the working partnership should be expected. Officials uniformly suggest using memos of understanding that publicly state the expected outcomes and the division of

responsibilities among partners. Further, they recommend that clear points of contact must be established within each partner organization.

Cult of Personality

Sometimes programs suffer from the "cult of personality" or a situation in which the leaders of partner organizations establish close personal relationships and operate the program based only on that relationship. Thus, if something happens to "remove" one of the personalities from the partnership, the partnership suffers and may have difficulty surviving.

The strategy that several of the exemplary programs have adopted to overcome this problem centers on three areas. First, signed memos of understanding among the partner organizations are a valuable tool in maintaining continuity within the program regardless of what career options the partnership's chief architects might pursue. Second, when programs have high public exposure and media attention, public expectations for the program help maintain the priority for and activity of the program, even though the corporate officials in partner organizations may change. Third, to avoid the "cult of personality," spread the decisionmaking and contact responsibilities among many people within the partner organizations rather than involving only one or two individuals in these activities. Indeed, one characteristic of the model program is decentralized decisionmaking and broad-based responsibilities for maintaining contacts among partner organizations.

Lack of Information

An initial barrier faced by several partnerships was not really knowing where to start. They lacked data about successful models, experience about how to form a partnership, and information about how other organizations in the partnership conducted business. Some fortunate programs, such as Louisville, were able to secure information on similar program designs. However, most programs learned from trial and error. Program officials offer the following general advice to organizations that are considering forming partnerships:

- Start small and grow.
- Carefully analyze the strategic economic needs of your geographic area and of each potential partner, then build those findings and ideas into the program and marketing design.
- Express your own needs candidly; prefer honesty over bluff.

- Become a good listener. Pay attention to the words and the needs expressed by the partners.
- Keep your word and keep others informed. Trust requires time and communication to grow.
- Avoid becoming discouraged. You will be told "no." Learn from those situations and keep working.
- Learn from others when you can. Check with government, business, and educational organizations for information on similar and related activities.

Demographic/Economic Changes

Problems arise because of economic or demographic changes in the region. These changes include the diminishing size of the age cohort of secondary-level students, the growth of non-English speaking immigrant populations, and a shift in the local economy from manufacturing to service-based industries. Project COFFEE as well as the Louisville, St. Louis, and Los Angeles programs reported that concerns over these issues have posed difficulties either in program operations or in program planning and implementation.

The necessity of dealing with economic and demographic changes can be viewed as an opportunity for revitalizing the partnership.

A strategy for dealing with the problem, as reported by program officials, is to "stand the problem on its head." That is, view the necessity of dealing with economic and demographic changes as an opportunity for revitalization of the partnership. These challenges are important, especially in the more mature programs, because they stimulate new ideas and offer an opportunity to rekindle the efforts of the partnership. Programs like COFFEE and Los Angeles used the lessons learned during the early development stages of their partnerships and, when confronted with economic/demographic changes, forged relationships with new partners; the comprehensive Workforce LA is one such planning effort. The result, in each instance, has been the expansion of the program to serve more students than had previously been the case.

Turf Conflicts

"Turf battles" occur, even in exemplary programs, at three levels: among partner organizations, within individual organizations in the partnership, and with the larger community. The difficulties among partner organizations in the study have arisen in two areas: marketing the program and program services to new organizations and working through day-to-day operations. For example, one problem encountered both

in creating partnerships and in operating programs has been a defensive posture on the part of some of the organizations that might be served by the program. When officials in various programs examined this reaction, they determined that it often resulted from the approach they took when attempting to involve the organization in the program. For example, when Project ANEW staff initially approached contractors and union representatives regarding the program concept, they presented the ANEW program as an opportunity to overcome "deficiencies" in hiring practices regarding affirmative action. Rather than facilitating linkage development, the approach resulted in a defensive reaction from contractors about being "deficient." Over time, project staff learned that a better approach is to learn enough about the potential partner to determine how program services fit the organization's mission and then to present issues rather than problems and discuss the proposal as a win-win service opportunity.

Several strategies were recommended as successful ways to deal with day-to-day operational conflicts among partner organizations. Among the ideas endorsed by officials were the following:

- Focus on a singular mission for the program, and subjugate all other objectives or needs to that mission.
- Use the advice and resources of each organization so that every partner feels ownership for the program.
- Work to achieve equity among participating organizations in terms of the input each provides and output each achieves.
- Distribute appropriate credit for success each among the partners and say thank you.
- Recognize and accommodate the strategic needs of each organization in the partnership.
- Establish and maintain internal rules to the partnership about how each will discuss the program and its problems in public.

All programs report continuing problems with issues related to turf battles. Interestingly, however, those problems seem to occur more often within individual partner organizations than between or among partners, especially for mature partnerships. Internal battles in this second area of conflict arise from time to time over issues such as withholding use of some equipment or facility from one part of an organization to another, quibbling about broken equipment, arguing over

scheduling of training or rotation of trainees through the work processes, or complaining about time required for supervision.

Strategies that seem effective in resolving internal turf battles include the following:

- Determine internally, in advance of program startup, exactly how the program will fit into the ongoing operation of the organization, with particular attention to preparing for the intrusion of trainees into the work setting;

- Establish the program as a separate entity with its own point of contact, individual schedule, individual facility, and perhaps most important, independent cost center;

- Encourage the program to build its own community constituency so that it is viewed positively in the larger community and, therefore, contributes to the overall credibility of the partner organization; and

- Ensure that top-down commitment to the partnership continues so that political infighting can be minimized through the line authority of the organization.

The third area of conflict is between the program and other organizations outside the partnership. Officials from exemplary programs suggested two strategies to deal with this problem. First, involve representatives from the outside organizations on planning task forces and/or curriculum review committees. Second, continually strive to improve the program image by publicly emphasizing the success of the program.

Although the existence of turf battles between or among partners was alluded to at a number of sites, the specifics of those problems were not discussed. Partners are reticent to discuss issues relating to turf. They prefer to work behind closed doors to solve those problems and present a unified stance in public. This confidentiality regarding disagreements seems to be one of the earmarks of successful partnerships.

The hurdles that were faced by some of the programs in the study, and how each one was successfully handled, are presented below.

Image is often a problem in organizations known for having large numbers of low-skilled employees who work in occupations with no career potential. By creating a career ladder to enable progression within the company, helping to design a curriculum to move people from one step to the next, and publicizing the effort both inside and outside of the organization, companies were able to enhance their image with current and potential employees and within the broader community.

Program acceptance by the professional community can be a problem when protecting vested interests is commonplace in the profession. Through development of quality programs and curricula, success breeds its own constituency. The programs that faced resistance among professionals in the field generally encouraged professional staff to participate on advisory committees and to become integrally involved in helping to institute the program. The participation of well-known professionals and of prestigious accredited institutions also lent credibility to the venture. When the training produced higher skilled team members and enhanced the image of the organization within the community, even the most resistant members of the professional community supported the program.

Promotion was a problem for some programs because of resistance from staff of the existing programs at the educational institution providing the training. The programs were able to turn this around by establishing a feeder type of program through which graduates go on to higher levels of study at the educational institution.

Some of the programs faced internal resistance from administrators in the partner organizations who were hesitant to support the program. This resistance was quickly squelched by results—improved services, decreased costs, and improved image in the community.

Resources

Resources were mentioned as a barrier in several programs; however, more often than not, the barriers identified took forms other than simply "lack of money." For example, in some programs, the "red tape" involved in funding sources such as the Job Training Partnership Act and the Carl Perkins Vocational Act monies is burdensome. Business and industry partners seem especially sensitive to this issue and, in some instances, have counseled other partners to refuse public money because of the paperwork involved. An alternate strategy for dealing with the issue is to designate a specific partner, usually an educational institution, as responsible for handling the paperwork associated with securing and using Federal and State government funding sources. Further, the "paperwork partner" educational program can carry the funds on its books and handle the financial accountability aspects.

The importance of the program mission drives the partners to surmount obstacles associated with resources.

Funding rarely was identified as a primary problem in the model programs. This is not to say that resources are plentiful or easy to find. However, the prevailing orientation within the model programs is that, given their mission, given the resources available within the greater community, and given the partners involved in the program, creative solutions to the issue of resource needs can be identified and

APPENDIX:

STUDY QUESTIONS

implemented. The importance of the mission drives the partners to surmount those obstacles. Often, the mixing and matching of resources empowers one organization to secure in-kind contributions from another and generates feelings of ownership because of the large time commitments required on the part of all partners. As one administrator phrased it, "The problem is more one of sufficient imagination and will than one of adequate amounts of money."

APPENDIX: STUDY QUESTIONS

I. Evaluation of Successful Linkages

A. LINKAGE DEVELOPMENT

1. What types of linkages have been developed?
2. What agencies/organizations have been involved in forging linkages and in program planning?
3. What procedures have been used to develop these linkages?
4. What was the political, economic, and historical context under which linkages were developed?

B. PROGRAM OPERATIONS

5. How is the program funded? What are the costs?
6. How has the program been promoted?
7. How do successful programs recruit participants?
8. How many participants are in the program?
9. What types of training are offered? How is the training designed and delivered? How do program staff interact with trainees?
10. Have changes in the training content, design or delivery occurred over time?
11. How well does participant training fit the local job market?
12. What procedures are used to assess participants?
13. How is the program evaluated?
14. What are past and projected program outcomes?

C. IMPACT

15. What has been the impact on each agency or organization as a result of its involvement in the program?

16. What impact has the program had on the community?

II. Identification of Issues and Barriers to Linkages

A. LINKAGE DEVELOPMENT

1. What legal and political barriers, "turf" issues and past relationships inhibit or enhance the quality of successful linkages?

2. How much time is needed to form successful linkages? How can this time be reduced?

3. Is funding a problem in developing linkages?

B. PROGRAM OPERATIONS

4. Is program success dependent on the type of participants selected into the program?

5. At what level of skill and education do participants enter the program? Is remediation necessary?

6. What background, training and qualifications of instructors and staff affect success?

7. How does program structure and management influence program operations?

8. How have technical assistance needs been identified and addressed?

C. IMPACT

9. What role do Federal and State policies play in promoting linkages?

10. What problems or concerns have surfaced as a result of each partner's involvement in the program?